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Karl Stark Pister

UNIVERSITY OF CALIFORNIA, BERKELEY, COLLEGE OF ENGINEERING, PROFESSOR AND DEAN; UCSC CHANCELLOR; UNIVERSITYWIDE CHAIR OF THE ACADEMIC COUNCIL AND VICE PRESIDENT--EDUCATIONAL OUTREACH, 1952-2003

With an interview with Rita Olsen Pister

With introductions by Kristofer Pister
and
Richard C. Atkinson

Interviews Conducted by
Germaine LaBerge
in 2000-2002

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Karl S. Pister, 1992

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Family background and childhood, Stockton, CA; B.S. and M.S. in civil engineering, UC Berkeley, 1942-1948: V-12 program, U.S. Navy service; University of Illinois, Theoretical and Applied Mechanics, Ph.D., 1951; research in structural mechanics, earthquake and aero nautical engineering ; professor and dean, UCB College of Engineering, 1952-1990; UC Academic Council and thoughts on shared governance; consultant at Lawrence Livermore Laboratory; chancellor at UC Santa Cruz, 1991-1996; UC Vice President—Educational Outreach, 1999-2000; reflections on K-12 and higher education, Catholicism, diversity, engineering, family and graduate students. Includes interview with Rita Olsen Pister, associate to the chancellor.

Introductions by Richard C. Atkinson, President, University of California; and Kristofer Pister, Professor of Electrical Engineering, UC Berkeley

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PREFACE

When President Robert Gordon Sproul proposed that the Regents of the University of California establish a Regional Oral History Office, he was eager to have the office document both the University's history and its impact on the state. The Regents established the office in 1954, "to tape record the memoirs of persons who have contributed significantly to the history of California and the West," thus embracing President Sproul's vision and expanding its scope.

Administratively, the new program at Berkeley was placed within the library, but the budget line was direct to the Office of the President. An Academic Senate committee served as executive. In the four decades that have followed, the program has grown in scope and personnel, and the office has taken its place as a division of The Bancroft Library, the University's manuscript and rare books library. The essential purpose of the Regional Oral History Office, however, remains the same: to document the movers and shakers of California and the West, and to give special attention to those who have strong and continuing links to the University of California.

The Regional Oral History Office at Berkeley is the oldest oral history program within the University system, and the University History Series is the Regional Oral History Office's longest established and most diverse series of memoirs. This series documents the institutional history of the University, through memoirs with leading professors and administrators. At the same time, by tracing the contributions of graduates, faculty members, officers, and staff to a broad array of economic, social, and political institutions, it provides a record of the impact of the University on the wider community of state and nation.

The oral history approach captures the flavor of incidents, events, and personalities and provides details that formal records cannot reach. For faculty, staff, and alumni, these memoirs serve as reminders of the work of predecessors and foster a sense of responsibility toward those who will join the University in years to come. Thus, they bind together University participants from many eras and specialties, reminding them of interests in common. For those who are interviewed, the memoirs present a chance to express perceptions about the University, its role and lasting influences, and to offer their own legacy of memories to the University itself.

The University History Series over the years has enjoyed financial support from a variety of sources. These include alumni groups and individuals, campus departments, administrative units, and special groups as well as grants and private gifts. For instance, the Women's Faculty Club supported a series on the club and its members in order to preserve insights into the role of women on campus. The Alumni Association supported a number of interviews, including those with Ida Sproul, wife of the President, and athletic coaches Clint Evans and Brutus Hamilton.

Their own academic units, often supplemented with contributions from colleagues, have contributed for memoirs with Dean Ewald T. Grether, Business Administration; Professor Garff Wilson, Public Ceremonies; Deans Morrough P. O'Brien and John Whinnery, Engineering; and Dean Milton Stern, UC Extension. The Office of the Berkeley Chancellor has supported oral history memoirs with Chancellors Edward W. Strong and Albert H. Bowker.

To illustrate the University/community connection, many memoirs of important University figures have in turn inspired, enriched, or grown out of broader series documenting a variety of significant California issues. For example, the Water Resources Center-sponsored interviews of Professors Percy H. McGaughey, Sidney T. Harding, and Wilfred Langelier have led to an ongoing series of

oral histories on California water issues. The California Wine Industry Series originated with an interview of University enologist William V. Cruess and now has grown to a fifty-nine-interview series of California's premier winemakers. California Democratic Committeewoman Elinor Heller was interviewed in a series on California Women Political Leaders, with support from the National Endowment for the Humanities; her oral history was expanded to include an extensive discussion of her years as a Regent of the University through interviews funded by her family's gift to The Bancroft Library.

To further the documentation of the University's impact on state and nation, Berkeley's Class of 1931, as their class gift on the occasion of their fiftieth anniversary, endowed an oral history series titled "The University of California, Source of Community Leaders." The series reflects President Sproul's vision by recording the contributions of the University's alumni, faculty members and administrators. The first oral history focused on President Sproul himself. Interviews with thirty-four key individuals dealt with his career from student years in the early 1900s through his term as the University's eleventh President, from 1930-1958.

Gifts such as these allow the Regional Oral History Office to continue to document the life of the University and its link with its community. Through these oral history interviews, the University keeps its own history alive, along with the flavor of irreplaceable personal memories, experiences, and perceptions. A full list of completed memoirs and those in process in the series is included following the index of this volume.

Harriet Nathan, Series Director
University History Series

September 1994

Regional Oral History Office
University of California
Berkeley, California

Willa K. Baum, Division Head
Regional Oral History Office

INTRODUCTION by Kristofer Pister

My first memories of my father's association with the University are of the giant steel doors that lead into Davis Hall at Berkeley. As a young child I remember walking through those doors, and thinking that such huge doors must belong to an extremely important building.

When I was finishing up my Ph.D. at UC Berkeley and trying to decide between faculty positions at UCLA and Princeton, I had finally figured out that my father had been a subtle but dominant influence on my thinking in all of the important decisions that I had made over the previous ten years (and before, no doubt). As we were discussing my options, and he was helping me clarify my thinking, I confronted him with this realization and expressed my gratitude (since things seemed to have worked out pretty well). He denied that he had achieved or even attempted any influence. That very night at dinner, however, when my sister asked me what I was planning to do about my job options, my father spoke up before I could even open my mouth and said "we haven't decided yet"! When dad was dean he used to like to say that a dean has very little direct power, and that if he tries to exert it he will likely meet with belligerence and irrational resistance. Faculties, it seems, have a lot in common with teenagers. But a dean gets to watch good and bad ideas fly by on a regular basis. He said that he exerted his influence by trying to gently speed up the good ones and slow down the bad ones. I'm grateful that he continues to slow down my bad ones until I can recognize them for what they are. My guess is that there are many with similar gratitude.

Of all of the experiences that I have shared with my father, I may have felt closest to him one time when he wasn't there at all. After several years as an assistant professor, I interviewed for a job at Berkeley. I remember clearly that I was trying to take the interview lightly, pretending that the job didn't mean much to me, until I saw something that literally stopped me in my tracks. On the morning of the second day I walked out of the Women's Faculty Club, and looked up to see the top of the Campanile in a deep blue sky, and an ocean of academic history and future washed over me. This was the same view that my grandmother had as an undergraduate at Cal, and the view that her son had when he was an undergrad as well. It was the view that I saw as a child, walking with my father to the football games at Memorial Stadium. It was the view that I had as a graduate student, and is now the view that my children have when they come to visit me at work. It is a view that has been shared by countless men and women who have dedicated their professional lives to opening the doors to education and knowledge. Men and women who have not only made their own contributions to knowledge, but worked tirelessly behind the scenes to protect and grow a culture that ensures others the opportunity to make their own contributions. My father is one of those men.

What incredible, magnificent, and inspiring doors they have built, that others may build yet grander portals beyond them.

Kristofer Pister
Professor of Electrical Engineeering
University of California, Berkeley

Berkeley, California
August 2003

INTRODUCTION by Richard C. Atkinson

I have often commented that Karl Pister is one of the most remarkable leaders in the history of the University of California. Not only has he had an enormous impact on the Berkeley campus as a distinguished member of the faculty and as dean of the College of Engineering, but he was one of the most active and informed chairs of the Academic Council, he transformed the Santa Cruz campus as its chancellor, and he was instrumental in shaping an entirely new outreach plan for the University of California. Achieving distinction in any one of those positions would be considered a major accomplishment, and many would be happy to rest on one laurel, but to have achieved success in each of those positions is something very few academics can claim. There is only one other individual who comes close to matching Karl's distinguished record as a leader in the UC system and that would be the late Angus Taylor, who served in almost the same positions. I think both Karl and Angus would be pleased by the comparison.

Achieving such success does not come easily. As Karl rightly points out in this oral history, for the most part university administrators are brought up from the ranks of the faculty and are rarely, if ever, given instruction or guidance in the running of a department or university. For better or for worse, they receive on the job training. Karl mentions that legendary Berkeley Professor Joel Hildebrand once observed that academic administration was too valuable to be turned over to professionals. What makes Karl so successful as a nonprofessional is that he truly understands and appreciates the role of the faculty, and, because of his great love for the University of California and his absolute belief in the importance of its mission, he has been willing to invest his heart and soul into the varied positions he has held. The University of California has been an integral part of Karl's life since he arrived on the Berkeley campus in the early forties as an undergraduate student, and he is one of an increasingly rare breed--an academic leader who has spent almost his entire adult life with one institution. Such institutional allegiance was at one time the norm, especially at UC, but regrettably for whatever reason, this no longer appears to be the case.

This oral history is much more than a look at one man's career, it is a history of the extraordinary growth and change that has occurred in the field of engineering in the post-World War II era. It is also a narrative of the University of California as it matured into one of the most respected institutions of higher education, as viewed from the perspective of a faculty member who was growing and maturing along with it. Karl speaks from numerous vantage points--that of a young engineering professor, as dean of the College of Engineering, as leader of, in his words, the *university curia* or Academic Council, as chancellor of a campus undergoing growth and renewal, and as the first vice president responsible for instituting a viable and effective outreach program for the entire UC system.

Over the years Karl has established himself as one of the luminaries of his discipline and, to his great credit, he has never sacrificed his engineering research for administration. Often referred to as the "founding father of the field of computational mechanics," his brilliant research into the mechanics of solids and structure and concrete-aided design of dynamic structures has been praised by the engineering community the world over. As one of the great structural engineers of our time, he has had a tremendous influence in shaping the field of engineering in terms not only of his own research but that of his students. This is especially true in the role he has played at the National Academy of Engineering in forging our nation's science and engineering policy. Not only is he an engineer of unparalleled accomplishment, but Karl is also one of the geniuses of the classroom. Whether it is teaching an undergraduate course or serving as a mentor to a graduate student, Karl is at his best. He is always supportive and encouraging, and he has the rare gift to

inspire his students to push the limits of their intellectual curiosity. His former graduate students can be found among the ranks of the most respected members of the engineering profession.

Over the years, Karl has also developed his talents as an academic leader of the first order. As presidents, David Saxon, David Gardner, Jack Peltason, and I have all relied on Karl's knowledge of higher education issues. I well remember the first time Karl and I met. It was 1980 and I had just assumed the chancellorship of the University of California, San Diego. President Saxon felt that, since I came from Stanford University (although I had previously spent several years at UCLA), I was in need of a primer on the concept of shared governance. He asked Karl, who was chair of the Academic Council, to give me a tutorial on the subject. Karl provided me an excellent overview and, in the process, we became friends. What four UC presidents and countless chancellors have found is that Karl presents his views in a cogent, well-thought-out manner, and, on those subjects he feels strongly about, he is an eloquent and passionate speak.er

There is one special theme that runs throughout this oral history, and that is the tremendous importance of family and faith in Karl's life. They are inextricably intertwined, and it is abundantly clear he considers any success he may have enjoyed simply icing on the cake when compared with the love of his family and the support his faith provides him. The University is indebted to the Pister family and his wife Rita, in particular, not only for sharing Karl with us, but for the many sacrifices they made so that he could work to make the University of California a better place.

In September 2000, I had the honor of bestowing upon Karl the Presidential Medal, the highest award the president of the University can give. It is appropriate that I close with the medal citation.

Distinguished professor and statesman of science, you have earned the highest honors your profession can bestow and inspired countless students with the power and beauty of your discipline; wise and thoughtful leader, you have devoted your many gifts of mind and character to the University of California as faculty member, dean, chancellor, and vice president through decades of challenge and change; eloquent advocate for California's children, you have served the cause of social justice and your contributions will enrich the lives of generations yet unborn.

For your steadfast and exemplary service to California and the community of learning, the University of California is proud to bestow upon you the Presidential Medal.

Richard C. Atkinson
President, University of California

Berkeley, California
July 2003

INTERVIEW HISTORY--Karl Stark Pister

Karl Stark Pister, whose oral history follows, can be described in many ways: a sixteen-year-old high school student from Stockton who dared tell the renowned Professor Joel Hildebrand that he aimed higher than UC Berkeley--namely, that he intended to go to the better school, Stanford University. A Golden Bear who earned bachelor's (1945) and master's (1948) degrees in civil engineering; who instructed and inspired students for forty-four years as their professor; who led the University of California, Berkeley, College of Engineering as dean from 1980 to1990; who in retirement stepped in as chancellor at Santa Cruz (1991-1996); and again stepped in as vice president for outreach (1999-2000); and finally took on the interim directorship of the Center for Studies in Higher Education (2002-2003). A family man who with his beloved Rita Olsen Pister raised six children and trekked them off to Europe in travels that rival *National Lampoon's European Vacation*. A religious man who characteristically donates his time to boards at the Graduate Theological Union and elsewhere. A man who has devoted his entire life to equity and fairness in whatever field he found himself.

Obviously, there is more to Karl Pister than the many titles he held for his alma mater. In the memoir, we see a young Ph.D. student (1949-1952) at the University of Illinois who struggles to understand a newfound Catholic faith; and an earnest fiance who sends Rita a diamond ring, wrapped in a plain cardboard box, through the U.S. mail. We see the young professor who, during the Free Speech Movement and Vietnam War era, grows a beard, changes his political registration from Republican to the Peace and Freedom party, and challenges the elders in his department, possibly to his detriment. "I never felt the slightest bit constrained to say what was on my mind....And people kind of looked forward to that, and sometimes would listen with a shocked expression on their faces at some of the things that I would say from time to time."

This oral history began in October 2000 when the Regional Oral History Office (ROHO), with a mandate and funds from the Office of the President, invited Karl Pister to sit down for a series of interviews on his life and career. We recorded two brief sessions on his childhood and prewar education. There was then a year's hiatus while Professor Pister meticulously culled through his files, organized his research life, his teaching life, his family life, into chronologically-ordered segments, and handed me a task so easy it was embarrassing. There were files of letters written, speeches delivered, commendations received. There were books and articles on engineering for the lay person which introduced me to the intricacies of the "engineer's mind." We resumed the interviews in January 2002 and in all recorded 48 tape hours. The interview tapes were transcribed and edited lightly at the Regional Oral History Office. The narrator looked the transcript over carefully, adding relevant details, correcting spellings, and changing words for accuracy, but not altering the conversational tone of the interview. After the transcript was corrected, he gave it one more look. Photographs and relevant appendix materials were added and the transcript was indexed at ROHO.

The memoir is a treasure trove for researchers in the field of engineering, university administration, outreach and recruitment in higher education, and the history of social consciousness. Rita Pister was interviewed, reflecting on her experience as the dean's and chancellor's spouse, mother of the six Pister children. Karl Pister's years as chancellor at Santa Cruz are covered in *Karl S. Pister: UCSC Chancellorship, 1991-1996*, an interview conducted by Randall Jarrell at UC Santa Cruz.

Karl came to each interview fully prepared, notes organized, for the topic of the day. He recounted escapades and triumphs and dilemmas in an easygoing manner, always downplaying the skill and brilliance with which he met the challenges of his 78 years, even admitting mistakes in judgment. He delighted in describing each of his six children and in documenting the accomplishments of his students alike. His "academic family tree" can be found on a disk attached to this volume. "My feeling was that if one of these students when he finished didn't know more about the subject than I, then I had failed him really." He credited colleagues for their wisdom. The Pisters' faith-in-action and kindness consistently impacted the lives of those around them—whether it was the community of Santa Cruz or Lafayette or Cork or Champaign/Urbana. I too felt it and appreciated it.

The Regional Oral History Office is grateful to the Office of the President for spearheading this project. We thank University of California President Richard Atkinson and Professor Kristofer Pister for fine introductions to this volume. Mary Breunig from the College of Engineering, and Karen Holtermann, director of University Communications, provided useful background material. ROHO editors Ann Lage and Suzanne Riess gave valuable consultation. Retired University Archivist J.R.K. Kantor proofed the manuscript.

The Regional Oral History Office was established in 1954 to augment through tape-recorded memoirs the Library's materials on the history of California and the West. Copies of all interviews are available for research use in The Bancroft Library and in the UCLA Department of Special Collections. The office is under the direction of Richard Cándida Smith, and the administrative direction of Charles B. Faulhaber, The James D. Hart Director of The Bancroft Library, at the University of California at Berkeley.

Germaine LaBerge
Interviewer/Editor

August 2003
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name Karl Stark Pister

Date of birth June 27, 1925 Birthplace Stockton, California

Father's full name Edwin LeRoy Pister

Occupation High School Teacher Birthplace Abingdon, IL

Mother's full name Mary Kimball Smith

Occupation Teacher/Homemaker Birthplace Stockton, CA

Your spouse/~~partner~~ Rita Olsen Pister

Occupation Teacher/Artist/Homemaker Birthplace Oakland, CA

Your children Karl Francis, Mary Therese, Mary Anita, Mary Juanita, Mary Claire, Kristofer Stefan Josef

Where did you grow up? Stockton, CA

Present community Lafayette, CA

Education B.S., M.S. University of California, Berkeley
Ph.D. University of Illinois, Urbana-Champaign

Occupation(s) Professor and Dean of Engineering, UC Berkeley; Chancellor, UC Santa Cruz; Senior Associate to the President and Vice President-Educational Outreach, UC Office of the President

Areas of expertise Mechanics of Solids and Structures, Optimal Design of Dynamically Loaded Structures, Higher Education

Other interests or activities Hiking and cross country skiing in the Sierra Nevada, gardening at home

Organizations in which you are active California Council on Science and Technology, American University of Armenia, National Academy of Engineering

SIGNATURE Karl S Pister DATE: 1/27/02

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name RITA OLSEN PISTER

Date of birth April 14, 1925 Birthplace Oakland, CA

Father's full name CARL N. OLSEN

Occupation Carpenter Birthplace Portland, OR

Mother's full name MARY MAXWELL OLSEN

Occupation Homemaker Birthplace San Francisco

Your spouse/partner KARL STARK Pister

Occupation Retired, Emeritus Dean, Prof, Chancellor Birthplace Stockton, CA

Your children Karl Francis, Therese, Anita, Jacinta, Mary-Claire Kristofer

Where did you grow up? Oakland

Present community Lafayette, CA

Education A.B. College of the Holy Names
Secondary Credential, UC at Berkeley

Occupation(s) teacher, homemaker, ~~Consultant~~ Associate to the Chancellor, UC

Areas of expertise arts and crafts; motherhood

Other interests or activities genealogy, Women's Ordination Conference NOW, Call to Action, Planned Parenthood, Class leader for Meditative Prayer,

Organizations in which you are active see above

SIGNATURE Rita Olsen Pister DATE: August 12, 2003

INTERVIEW WITH KARL PISTER

I. CHILDHOOD AND FAMILY BACKGROUND

[Interview 1: November 21, 2000] ## [1] [1A]

Maternal Ancestors

LaBerge: We always like to start with a little background, so why don't you tell me the circumstances of your birth and a little of your family background.

Pister: Sure. Well, I was born in Stockton, California, specifically in Dameron Hospital in Stockton, California, on June 27th, 1925. My mother's maiden name was Mary Kimball Smith, and she married my father, Edwin Leroy Pister, in the summer of 1922. They were married at my mother's home place in Stockton, which is located somewhat east of Stockton. It was originally a substantial piece of an old Spanish land grant, which my mother's father, Stark Blount Smith, (after whom I was named--my middle name is Stark) Stark Blount Smith's grandmother, whose name was Mary Kimball Rhodes, purchased this from Charles Weber, who was the founder of Stockton.

This took place in 1853, and the lawyer who handled the land transaction was a San Francisco lawyer named William Tecumseh Sherman, who of course later became known as a very prominent Union general, which was a bit of irony because my great-great-grandmother Rhodes, who bought this land, was a very ardent Confederate sympathizer. Indeed, during the Civil War she mortgaged her property in Stockton and took the money, the story goes, sewn in her petticoats, back to the East Coast and used the money as ransom money to purchase the release of Confederate prisoners from Union prisons in the North.

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1. The symbol ## indicates that a tape or tape side has begun or ended. A guide to the tapes follows this transcript.

* Most documents referred to in this oral history have been deposited in the University Archives, The Bancroft Library, University of California, Berkeley.

LaBerge: You are kidding! Did she have relatives in the East or in the South?

Pister: My great-great-grandmother Rhodes was Mary Woodman Kimball--my mother's middle name was Kimball, named after her father's grandmother--she was born in Orford, New Hampshire. Her family name, Kimball, comes from Richard Kimball, who came from Ipswich, England, on the ship *Elizabeth* in 1634, and Richard Kimball's descendants settled up on the Connecticut River in Orford, which is just slightly north of Hanover, where Dartmouth College is.

She moved from there and ultimately married her first husband--she was married twice. Her first husband, Sherman Diggs, was from that area, Fairlee, VT, but her next husband was from North Carolina, and that was the origin of her Southern sympathy.

Grandma Rhodes, as we all called her, had a number of children, one of whom, Eddie Rhodes, was killed in the Battle of Gettysburg. While we're on this--if this is not too much of a digression--

LaBerge: No, this is wonderful history!

Pister: --my mother and my grandmother, my maternal grandmother, Mattie Smith, who was married to Stark Smith, the grandson of Mary Rhodes--anyway, they were ardent members of the United Daughters of the Confederacy, and I still remember the name, the Sterling Price chapter of the United Daughters of the Confederacy. As children, my brother and I were encouraged to attend the children's auxiliary meetings of the United Daughters of the Confederacy. Mind you, this would have been in the 1930s. I know my brother and I always felt uncomfortable about the matter of having to pledge or make a salute to the Confederate flag at the beginning of the ceremony.

LaBerge: Oh, my gosh.

Pister: I think--as a matter of fact, I recently uncovered a certificate of membership in that children's auxiliary of the United Daughters of the Confederacy.

There's another interesting coincidence here. I never learned from my mother who Sterling Price was, but he obviously, it turns out, was a Confederate officer. But once, many, many years later, on a visit to Taos, New Mexico, my wife and I visited a cemetery there, where Kit Carson was buried, in Taos, and we found there a marker on which there appeared the name of Colonel Sterling Price, who at that time was a member of the United States Army, having not yet switched to the Confederacy. He had been involved in a skirmish, one of the uprisings when the New Mexican Indians--that period of history--banded together and killed a lot of the settlers and missionaries that were in that area. But anyway, Price was on the Union side then. This is before he switched over to the Confederacy. A strange coincidence.

Well, anyway, that's a bit of the family history of my maternal grandfather. I don't know. Do you want me to continue with the ancestral part?

LaBerge: Yes, yes, absolutely.

Pister: Okay, because that gives a context for what we can talk about.

LaBerge: Even as you're saying this about being embarrassed about saluting the Confederate flag--I mean, maybe it's a long shot, but your involvement with affirmative action and everything--maybe there's some connection there.

Pister: There could be. My mother told me that when her father came with his grandmother from the South, he brought a boy with him, Robert, a slave boy. Of course, when he came to California I sense he would have been freed, because I think California was a free state, but I never heard any more about Robert except that this boy came with my grandfather.

So that side of my ancestry was purely from England, but my maternal grandmother, Mattie Grupe Smith, my mother's mother, was a first-generation American. It's important for me to acknowledge this, as you'll see. Her mother and father were both born in northern Germany and came to this country and settled in a little town east of Stockton named Linden, California.

They had a very large ranch there. At that time, everyone in that area did only dry farming; there was no irrigation, of course. They raised grain and cattle. But at any rate, they were very Germanic in their affiliations and in their life, their culture. My grandmother spoke a little German. And when my mother was young, she and her brother and sister all studied German. They had a private tutor. You'll begin to see where this fits together.

When my mother met my father, it simply reinforced this because my father was a first-generation German-American. His parents both came from Germany, from a different part of Germany, Edenkoben, in Rheinpfalz. My wife and I have visited all of these places, so there's a real close connection. His mother and father raised a family first in a small village in Illinois called Abingdon, Illinois, which was on the Iowa River, the border between Illinois and Iowa. They moved to California in 1909 and settled in the city of Orange, when it was just a little village, and basically were farmers. They were orange farmers.

At any rate, my father was a first-generation German-American, and together with my mother essentially created what I would call a very German-oriented culture for my brother and me to grow up in. In retrospect, I didn't appreciate this, but my wife, I think, has succeeded in convincing me that many of the habits and the traits that I have essentially find their roots in my very clear German upbringing. I might add she doesn't always see these as great attributes. [laughter]

LaBerge: [laughs] I take it she's not German.

Pister: No. My wife is essentially Irish and Scottish and Norwegian. Her father was Norwegian.

If I can just jump ahead for a moment, we spent two sabbaticals in Germany, and I think that was enough to convince my wife that everything that she saw in me as being German was simply proven beyond any reasonable doubt, having survived living in Germany twice.

Let's see, where are we now?

Paternal Ancestors

LaBerge: Okay. We know a little bit about your grandmothers and everything. What about your father's parents? Their names, for instance. The town they came from?

Pister: Yes. My paternal grandfather and grandmother came from, as I said, a small village in the Rhine valley. The name of the village is Edenkoben. We were able to visit that village in the 1970s and find lots of buried ancestors and relatives in the cemetery there. Edenkoben is a beautiful little village just south of Speyer, which has a beautiful Romanesque cathedral that we visited.

My grandfather was Charles Pister, Charles Arthur Pister, and my grandmother's name was Amalia. Her maiden name was Ehrenhart. I knew them less well because my paternal grandfather died when I was quite small, and my grandmother died when I was still a child, whereas my maternal grandfather had died before I was born, but I was fortunate to grow up in the home in Stockton with my grandmother, so it was a three-generation family experience, which I value in retrospect very much.

So I didn't see as much of my father's relatives in Orange, just normally once a year, and therefore didn't get to know them as well as the Grupe family of my grandmother and all their descendants around the Stockton area.

Jumping back just so we can put this in, the Grupe grandfather and grandmother came from a little town named Verden an Aller, in northern Germany, which we also had the privilege of visiting. It was a remarkable village that was spared any damage in either of the world wars.

Windsor Farm History

Pister: Okay, so that kind of, at least for the moment, covers where I come from, so to speak. But jumping back now again to my birth in 1925, I have a brother, Edwin Philip Pister, who's three and a half years younger than I, so Phil and I grew up together on the farm that my great-great-grandmother purchased. By the way, it was called Windsor Farm. It was named after Windsor, North Carolina, which was a place name important to my Grandma Rhodes.

Windsor Farm still exists today. I don't know if it's appropriate to talk about it here--

LaBerge: Yes.

Pister: My oldest daughter lives on Windsor Farm now. There's a story within the story there we can talk about. So at that time, when I was a child, Windsor Farm was still a very large piece of property. It was probably half a section, about 320 acres, and it was all in grain. My brother and I grew up, I think, in a sense, in idyllic circumstances, living out in plenty of open space and freedom to do pretty much as we pleased.

Karl S. Pister with his father, October 1925

LaBerge: Did your parents farm the land?

Pister: No. My father was a high school teacher at Stockton High School. My mother had been a teacher prior to their marriage; indeed, that's how my mother and father met. Interesting. My mother and father each received their teaching credentials from the Santa Barbara Normal School back just prior to World War I, but they never met there. It wasn't until they came to Stockton, at some teachers meeting or something, became acquainted and later on were married.

LaBerge: What were their fields?

Pister: My father taught in what was called at that time the vocational department in Stockton High School. He taught mathematics and mechanical drawing. My mother taught what was then called domestic science: cooking and sewing. My mother stopped teaching when her children were born, but after we grew up a bit, she went back as a substitute teacher.

LaBerge: So who farmed the land?

Pister: Okay. My grandmother, of course, was the heiress of the property, from my grandfather. She basically gave the responsibility for managing the property to my uncle, who was her oldest child. His name was Paul Stark Smith. Paul was more or less the manager of the place, but he did it on a part-time basis because he worked in a bank in Stockton.

Unfortunately, my uncle was not a terribly successful farmer, and gradually my grandmother was forced to sell off more and more of the property because it wasn't profitable, so--we don't have to go into that in any detail, but what happened is that over time--if I can bring it to the present--the amount of land that belonged to Windsor Farm was reduced to about thirteen acres. My daughter now has a home there that's essentially the third house that's been built on that property since my great-great-grandmother started it.

But she no longer farms. She and her husband have stables there, and they board horses, and they're very much into the matter of caring for horses and training people to ride. They don't do it themselves, but people come and help the training. My daughter is a middle school teacher in Stockton.

LaBerge: What's her name?

Pister: Her name is Tracy. Actually, Therese [pronounced teh-REZ] or Therese [pronounced teh-RACE], but she calls herself Tracy, Mary Therese Pister. Her husband is a retired navy chief warrant officer, and he runs the place now.

LaBerge: It's so nice to have it in the family still.

Pister: Yes, it is. Well, is this okay for me to make an interjection here?

LaBerge: Oh, you can say whatever you want.

Pister: Okay, because there's a really very bittersweet part to all of this that I probably ought to speak about. My father and mother lived on this property and up until the 1950s lived in the second house that was built on the property, an old Victorian that had fourteen rooms, two-story Victorian with a basement. And this is the house that I grew up in. No central heating, of course. No running hot water until I was older and we got a water heater that you turned on when you wanted hot water and turned off when you didn't want hot water. Indeed, I still as a child remember having both external and internal plumbing. We had a bathroom, but we also had an outhouse. So that was quite an experience to look back on.

At any rate, we had this old fourteen-room house where I grew up, and I want to connect that now to where my daughter is, and we can talk about living in that house at another time. My father died in 1963; but prior to that, my father had torn down the old Victorian and built a one-story smaller home, okay? After he passed away my mother lived there for a number of years, until she passed away in 1977.

At that time, my brother, who had been living in Bishop, California, for many years, and I were forced to make a decision about what to do with the property. We tried renting it for a while, and that simply didn't work, so ultimately I really tearfully sold the property, which had been in our family for over 125 years. It was a real hard thing to do.

There were two positive outcomes, however. One, perhaps the less important one but with some significance: from the sale of the house I was able to buy a little Victorian house in Pacific Grove that my wife and I have had now for the last twenty years, so that's been kind of a positive thing that happened. And that's connected to the fact that my mother, brother and I and grandmother went to Pacific Grove when I was just a small child and enjoyed the summer there, and we did that because my grandmother Smith liked to go down there. I have a letter written by my grandfather to my grandmother back in the early part of the 20th century.

That's, by the way, a letter in a box in a small secretary, belonging to my great-great-grandmother, that we have in this little home in Pacific Grove, so it's a kind of a wonderful remembrance that I have every time I go there and see it. This used to be in my grandmother's room, but now it's in our room, and it belonged to my great-great-grandmother. Still there.

At any rate. Okay. The other outcome of this is the following: The person my brother and I sold the property to was a very wealthy businessman in Stockton, and he made an incredible number of improvements to the house. He enlarged the house, he put in a swimming pool, he built a twelve-stable barn for horses, he built a covered exercise pavilion for horses and just really fixed the place up beautifully.

He didn't live there very many years, and then he ran into difficulties. He divorced his wife, and they lost the house. The bank recovered the house and the property. The bank then--I don't know which bank it was--the bank had a property manager, somebody living in the house for several years. They were unable to sell the property. He put a huge amount into it in improvements, but they were not able to sell the house.

So essentially, finally, the bank put up the house for almost like a fire sale.

LaBerge: And you kept track of it all.

Pister: Well, no, I didn't. I had lost track. I knew that the place was unoccupied. Well, my daughter and her first husband were interested--they were living in Mariposa at the time, and they were interested in coming back closer to the coast and coming back into Stockton, so just by a most amazing coincidence, they found this place for sale. Of course, Therese knew the place. She had gone there as a child. And they bought the house, the property, at a very good price, I might say.

So we were just delighted in this, to have the house come back in the family and have Therese there. At that point, they had a four-year-old girl. This was in July of 1991 when this happened. Well, now, here's where the sad part of it comes. One month after my daughter and her husband had moved down to Stockton, my son-in-law went back to Mariposa to do something in the place they'd sold up there, and on his way back he was killed in an automobile accident.

So all of a sudden my daughter was thrown into this position--she, of course, had resigned her teaching job when she left Mariposa, and she had a four-year-old, this new place with a mortgage and all the problems of adjustment. So that was the down side of that whole thing. But thanks be to God, she got a job teaching in Stockton, and she worked that out, and Rita and I--my wife, Rita, and I helped with the mortgage to get the property back, secure again.

She managed the place for herself for a number of years before she finally met a gentleman that she married, George Mulder, who is helping her run the place, so the story ends happily.

LaBerge: Wow.

Pister: Her husband, Steve, died just a week before we were supposed to go to Santa Cruz as chancellor, so it was a really very difficult time for Rita and me and for the family.

LaBerge: Wow, yes, yes.

Pister: So that kind of gives a perspective on where I grew up. I'd like to talk more when we have a chance, to talk about my childhood there because I think a lot of the experiences I had there were powerful forces in shaping the way I have led my life.

LaBerge: Shall we end it here, then, and start there the next time? Would that be good?

Pister: That's okay, yes.

LaBerge: That sounds great.

Pister: I think that would be fine. I'll think more about it, now, next steps.

LaBerge: Okay.

More on Paternal Ancestors

[Interview 2: December 19, 2000] ## [2A]

LaBerge: You spoke about whichever grandparents were involved--were Daughters of the Confederacy or something. Were those your mother's--

Pister: That's my mother's side of the family.

LaBerge: Right. I'm not sure if you spoke about your father's, so--

Pister: I should do that.

LaBerge: He came from Illinois; I remember that.

Pister: Right. My father was born in a small town in Illinois, on the Iowa River. The name of the town is Abingdon. His family was established there by his father and mother, who came to the United States in the last part of the nineteenth century from a very small village in the Rhine Valley of Germany, a little village whose name is Edenkoben. My grandfather was, at least according to the records that we saw when we visited the city many years later, a vintner in that area, which is not surprising, since the Rhine Valley is a source of much of Germany's wine industry.

But anyway, my grandfather came as a relatively young man who had served in one of the Kaiser's campaigns in Germany, and we have pictures at home of him in his army uniform. But at one point he decided that he'd had enough fighting for the Kaiser. He was then a painter, actually. He did work in churches and elsewhere. So one day he went off, as if he were going to go to his work, painting, but he kept on going and walked across the border into France, and disappeared from Germany and never went back again.

I never really understood that completely until the Vietnam War came along almost a century later, when there was a substantial concern on the part of many of our young people about serving in a war that they didn't support, and I realized that my grandfather was a draft dodger and it was, I would have thought, a justifiable act on his part.

LaBerge: Tell me his name.

Pister: My grandfather's name was Charles Pister. He and my grandmother, whose name was Amalia, had eleven children. Only eight survived. My father was next to the youngest in the family. He moved with his family from Illinois to the city of Orange in 1909, and so my paternal grandparents settled there and had an orange grove and property out away from Orange, in an area called Villa Park, which now still has that name. In those days, of course, it was very rural. Even into the 1930s, when we visited there as children, my brother and I, with my mother and father, it was still very rural. Today, of course, it's all turned into housing developments and all of that beautiful orange grove country and undeveloped land has disappeared.

I remember also going out to the Orange County Park, which was in the area called Irvine; it wasn't a city in those days. Irvine was just a lot of big fields in those days, a very

different place. Laguna Beach was still a very sleepy little town. My uncle Carl used to go abalone hunting in the surf there.

Anyway, that's the other side of the family.

LaBerge: How about your grandmother? Your paternal grandmother, and how did they meet? If you know.

Pister: I recall that they did not marry in Germany. They married after they came to the United States. They were both from the same area and happened to get together after they came to the United States. I don't have that on the top of my memory, however.

Parents

LaBerge: Okay. So your father grew up working in the orange groves?

Pister: My father grew up in southern California. He actually did painting, just as his father did, for a period of time before he went off to Santa Barbara Normal School to get his teaching credential. I think I mentioned before, both he and my mother received their teaching credentials at the normal school. It used to be up by the Santa Barbara Mission.

I should mention an interesting--well, it was an interesting and difficult experience that my father had on the trip from Illinois to California, when they came out by train to California, that affected my father for the rest of his life. During the train trip, the train was stopped by a group of bandits. Mind you, this is the first decade of the twentieth century. These bandits were bent on taking money out of the mail car. Apparently there was a shipment of gold; at least they thought there was. So they put an explosive device in the mail car and blew up the safe where the money was, to get the money.

And two things happened. Well, the family had a dog, and the dog was in that car, and the dog I think was either destroyed or badly injured by it, but my father's hearing was affected by the explosion. He was close enough to the explosion that it affected his hearing, and as a consequence, when World War I came along, my father was declared 4-F because of his hearing deficiency. Later on, of course, he got a hearing aid so that he was able to maintain--

So that was a curious experience, from Illinois to California.

LaBerge: Right.

Pister: All right. I may have mentioned--on the other side--I knew both of my grandmothers--I knew my grandmother, my father's mother, because she didn't die until the late thirties, but my paternal grandfather--I have a picture of myself sitting on his knee, died when I was still an infant, and I really never knew him. On my mother's side, my grandfather also died before I was born--in fact, before my mother and father were married. His death postponed the marriage of my mother and father for several years because of the social customs of the time.

My maternal grandmother, however, who really inherited the property where I lived as a child--stayed in the home. Indeed, I lived in a three-generation home for all the time I was in Stockton. I think that was a very nice experience because I really got to know my grandmother and understood aging better than I might have, had I not had that experience. She of course was a very useful babysitter, particularly when my mother went back to teaching, as she did, as a substitute after my brother and I started school.

LaBerge: How did your parents meet?

Pister: My mother and father, as I said, went to the same normal school, but they didn't meet there. By pure coincidence, I guess, my father's first teaching job, and only teaching job, was in Stockton. He was teaching at a school called a pre-vocational school. You remember in that period of history there were vocational high schools, and this was a pre-vocational elementary school, so it was for kids who simply, for whatever reason--it was probably largely socioeconomic at the time--were tracked into what you might call a trade school kind of preparation, rather than an academic preparation.

So he was teaching there, and my mother was teaching in the Stockton school system, and they met at some kind of an affair, which I can't recall. As a consequence of that, my father and mother started to date, and my father, at least one summer, if not several summers, worked for my mother's father out on the ranch where they lived. So that was a very fortunate coincidence for the both of them, I guess, because he was able to be closer to my mother.

They married in 1922.

LaBerge: A little while ago you mentioned that their marriage was postponed because of the social custom.

Pister: My grandfather was injured in an accident. He fell off a windmill at our place. He was injured, and I don't know that his death was directly attributable to the fall, but his health really was not good after that, and he died. I think the death in the family was the occasion of postponing the wedding. In some traditions there was actually a formal period of mourning. I don't know that was the case, but at least there was a sense on the part of my mother or my grandmother, probably the two of them, that she should not marry.

LaBerge: Because when we're doing oral histories, we try, if we can, to think of various uses a researcher will have for it, and there are people who would find just some of the customs of the time that we don't necessarily see now.

Pister: Yes. They were married under a big oak tree on our property. It was a very small wedding. I think, again, that probably was a consequence of the fact that my grandfather had died, possibly the year before--I'd have to check on that date. I remember my parents saying--we were right next to, a couple of hundred yards from a railroad line, a line that went from Stockton to Oakdale. And no sooner had the wedding ceremony concluded than the train went by and there was a lot of whistling and all, because there was a crossing right there, and that would have been quite disruptive. They whistled before they got to the crossing, they whistled while they were going through the crossing, and as a child I remember hearing those whistles all the time, with the old steam engines.

Anyway, I think I mentioned earlier my brother was born in 1929, so I'm three and a half years older than he.

Elementary School in Stockton

LaBerge: Right. We talked a little bit about Windsor Farm, but not really about your childhood and what it was like to grow up on Windsor Farm and in Stockton.

Pister: I think that can transition into the period of my elementary and high school education in Stockton. When I look back now, at the time when I was a child, I think my grandmother still had at least a half a section of land--it was 320 acres--so in looking back, I see the incredible freedom that I enjoyed as a child with all of that land to run around on, so to speak. It was all in grain, so the fields were dry, except in the wintertime, of course. We could go out. In those days I loved to hunt. We could hunt or we could just do things that kids do out in the fields and play around. I had a wonderful time growing up without the oppression of population around oneself.

I remember my mother often referring to me as a country boy, that "You're not a town boy, you are a country boy." That was not a pejorative remark. Somehow there was a quality of life that made one in a sense superior to people that grew up in the city. That's kind of an odd way to put it, but--

LaBerge: Kind of a wholesomeness.

Pister: At least a wholesomeness, yes. I think that's a better way to place that remark.

That leads me, then, to talk a little bit about my education, because my grandfather and then my mother and her brother and sister attended a two-room school, which was a mile from our house, a school called the Glenwood School. It still exists, but not on the same location, actually. It was a simple, typical country school, part of the county school system.

Well, my parents, right from the beginning, formed the opinion that they didn't want me or my brother to go to that school because they felt that we wouldn't get a proper education. So beginning with the first grade and through my entire grammar school period, the first eight years, my parents each year had to go to the Board of Education for that district and get their written permission for me to go out of the district because, of course, the district lost the ADA [average daily attendance] funds for my absence.

That was kind of always a humbling experience. I remember how, just as a child, I caught parts of their conversation, and it was always a source of anxiety for them, of course, because the board members had to approve it or else I'd have to go to that school.

Well, I started out in a school at the age of six. That would have been 1931. I started out at a very fine school called the El Dorado School in west Stockton, in what one would call the "good" part of town, the south and the east being "less good" than that part of town.

LaBerge: Did they pick this particular school, too?

Pister: I'm sure they did. Possibly, the choice was also associated with the fact that my mother's sister, my Aunt Margaret, and her husband lived relatively close to that school, so I think my mother and father thought that maybe I could--after school, if they couldn't pick me up, I could go to my aunt's place and so on. I don't remember a lot of occasions like that, but I know there must have been some.

So I started at that school. It's really interesting that of all the teachers that I had at that school--I was only there for two years--I remember the name of my first-grade teacher. She was a wonderful lady. She was a friend of my parents. Her name was Nan Sykes. I can't picture her, but I know her name well, and I can still see her with big charts on the wall, teaching us phonics and pointing to the sounds, and we'd have to make the sounds.

But, again, a very odd recollection, the only other recollection of the first grade, is that she created for us a rhythm band. We each had special instruments, like the blocks or the sandpaper or the drum. I had an instrument called the bird whistle, which I had to fill with water from a drinking fountain and then blow, and it warbled like a bird. She had a musical staff, I suppose with the pictures of the instruments on it. It was, as I said, a rhythm band, and she would point at each one of us, who would perform with that particular instrument.

Well, she was also a friend of the family that owned the local radio station in Stockton. There might have been two, but one of them--I can't remember the name of the station any longer--at one point she got permission to have us perform on the radio, this first-grade rhythm band, and we had special uniforms made with little capes and all.

LaBerge: Even though no one could see you on the radio.

Pister: We all traipsed into this thing, and we performed, I think, one Saturday morning on the radio. Of course, that was just absolutely the high point of the parents' and our experience, to perform on the radio, in the rhythm band. Interestingly enough, years and years later, a friend who at that time was a little girl in my class that I met when I was dean of engineering down here--we got reacquainted again--reminded me that she was also in that rhythm band and we played instruments together. It's really a small world.

LaBerge: It sounded like you liked school.

Pister: I loved school. I did very well in the sense that I left El Dorado School in the fourth grade, and I'll come to that. But in the meantime, while I was there I skipped the low second and the high third grade, so I went from the first grade to the high second and then to the low third grade and finished that grade, so I was already a year ahead when I started the fourth grade, and then the roof fell in on us. The El Dorado district became impacted, and my parents were told that I'd have to move out of the district because there were too many people in the district.

So my parents were faced with finding another school for me. Actually, at the time, of course, it was a crushing blow because I was a little guy in the fourth grade. I had to leave all my friends there and go to a new school. So my parents put me in a school in east

Stockton which was what I would call a lower-middle-class, relatively poor part of Stockton, but the school and the teachers were still outstanding people.

The name of that school is Lottie Grunsky. I attended that school for the rest of my grammar school days and graduated from that school in February 1938. I made a lot of good friends there. I think the most important part of that experience was the fact that these kids were by and large fairly poor, and it was a very diverse school, whereas the El Dorado School was basically all white. I grew up with kids that were first-generation immigrant children. There were lots of Asian Americans, there were all kinds of European American immigrants that were in that school, so that it was an early experience at diversity that I think even unconsciously affected my attitude toward other people all the rest of my life, including the present, when I've been charged with responsibilities for diversity at the university, so it was a good experience from that standpoint.

Socialization

Pister: I enjoyed school a lot there. I had some outstanding teachers. I skipped the low sixth grade at Lottie Grunsky School, so I graduated a year and a half ahead of my chronological age. I want to stop there because when I entered Stockton High School in February of 1938 I was less than five feet tall. I was twelve years old, and I weighed ninety-some pounds or something, so I was just a little guy. Compared to the other kids in the class, I was clearly the little brother. Most of the girls in my freshman class looked at me as their little brother and not someone they were terribly interested in for other reasons.

LaBerge: Right.

Pister: I'm trying to make the point that the socialization I underwent probably was very much affected by the fact that I was much younger than most of the kids.

LaBerge: Younger, smaller. And for a boy I think that's got to be much harder.

Pister: I guess in one sense it was less of a problem because I was always considered to be one of the brains in the class because I was favored by my genes to have a good intellect, and I always did well in school. For most people, at least at that period of history--if you did well, that was an attribute.

LaBerge: Right, because sometimes it's a stigma.

Pister: That's right. It was much more a problem for my children than it was for people in my generation, I think. So that was good for me.

The thing that was troubling, though, is that I couldn't participate in varsity sports because I was too small. I loved sports. I played a lot of club basketball, but of course never on varsity teams. We used to have A, B, and C teams. I couldn't even make the C team. I remember at one point, when I was in grammar school, trying to qualify for a certain level

of competition. They made the decision on the basis of one's weight, and at one point a school friend of mine and I were thinking of putting rocks in our pockets to try to increase our weight. That shows you the limits that you'll go to.

LaBerge: Well, let's go back to elementary school and what you did. Like, did you play baseball?

Pister: Oh, sure.

LaBerge: Other kinds of hobbies you had.

Pister: I loved baseball and football and basketball. I played with school friends, and I played on the school teams. I remember in those days, [in] the seventh and eighth grade there was still a requirement for manual training for boys and domestic science for girls. We had a wood shop in the basement of our Lottie Grunsky School. We spent, I think, half a day a week, or it could have even been a full day--I can't remember that--but there was a substantial amount of time put in, learning how to do wood work and all. I'm connecting this to the sports. That's what I'm trying to do here.

I remember I was making a foot stool at the time. That was one of the first projects one made. The teacher of the class said, "Okay"--because he was also kind of coaching our football team--he said, "Anybody that scores in the game this week, you can get your foot stool free." So the gods shone on me, and that week I caught a pass--I played end on this little team--I caught a pass and made a touchdown, and I got a free foot stool. I still remember that.

My father, as I mentioned, taught mechanical drawing and mathematics, but he also, at different periods of his teaching career, taught wood shop, so he was a superb cabinetmaker. Invariably, if I did anything in this class, he had to oversee it to be sure that it was up to his standards. In fact, my father had a wonderful shop in the basement of our home, and any time I'd start to make something there, my father would come in and say, "What are you making?" And he'd usually intervene and finish the project for me.

I learned a lot from that because I saw the right way to do things, but it kind of stifled my own creativity, since he always wanted to make it just a little better than I was doing it. I hope I didn't repeat that with my sons, but I probably did.

Influence of the Stockton YMCA

Pister: What I'd like to mention also in that period of my life, something that I felt has been, in retrospect, very, very important: About the seventh grade, I guess--it could have been as early as the sixth--I don't remember now--I joined the Stockton YMCA. I had a tremendously important experience in the Y. The director of the boys program, as it was called then, the youth program at the Stockton Y, was a wonderful guy, Frank C. Wood, a wonderful role model for young boys. He brought in older leaders. When we were in grammar school, they would be high school kids; they were our leaders.

It was a very formative experience because we had weekly meetings there, to build team spirit, we did things that were good for boys to do, to direct our energy into things. Sports--we played church-league games and things like that, which I really enjoyed. And then in the summer, I had the experience I think four summers, two in grammar school and two in high school, of attending a summer Y camp, which was up at Lake Alpine on the Ebbetts Pass Road.

Those summer experiences were tremendous also. The last year, I guess, I was a tent leader. That meant I had seven younger kids that I was responsible for. Not only did it develop leadership and just, I'd say, giving young boys a sense of who they were and what was good behavior and what wasn't, it was done in a nondenominational Christian environment that--

[2B]

LaBerge: You were saying that it was a nondenominational experience.

Pister: It was a nondenominational Christian experience. As I said, the quality of the leaders there, the director and at that point it would be college-age young men that were the camp assistant directors and all--it was just a very wholesome, very good grounding experience for young boys, something I think is all too often missing in kids' lives for--not necessarily because they chose to have it missing; it's just that they weren't fortunate enough to have that kind of experience.

LaBerge: Similar to scouts?

Pister: Yes. I was a YMCA person and not a scout. Scouts do the same kind of thing. Yes, it's a very important opportunity. In fact, just kind of editorializing here, in the work I've done in these recent years in trying to help California school kids achieve, one learns very soon that if you only direct your efforts to the school site, trying to improve students' achievement by focusing on the schools, you're going to miss a huge factor that affects student achievement in school, and that is what's their life like outside of school?

And that's probably just as important as what happens in school. I was fortunate enough to have both a set of parents who valued education as well as a set of reinforcing experiences outside of school that showed that education was important. For example, in the Y we used to have some sort of competition. You had to keep a scorecard, and every week you get marked, on did I do my chores at home, what kind of grades am I getting in school, and you had to put all this down, and if you didn't make a certain score you didn't get the pin or the banner or whatever it was. Boy, that was tremendously motivational in that period, at least, for all the kids I knew, so that was another good experience from the Y.

I'd like to also go back and connect this to the transition into high school, which was an important one. When I left Lottie Grunsky School and attended Stockton High School--there was only one high school in Stockton at that time--

Dancing School

LaBerge: You were in the right district? I mean, everybody went?

Pister: There was only one public high school in Stockton. It was the same high school that my mother went to and the same that my uncle and aunt attended earlier in the century. So I made the transition to high school. It was a high school where my father taught; in fact, he had a classroom there which I often went to, waiting to go home with him in the evening.

But I was trying to remark on a reconnecting experience. I guess it was in my freshman year of high school, my mother decided it was time for me to learn to dance. So here's a twelve-year-old kid being told, "You have to go to dancing school now." It was a replay of my experience taking music lessons, when my mother decided it was time for me to learn to play the piano. Well, I tolerated that through grammar school, but when I went to high school I said, "No, no more music lessons."

Well, I wish she had won that battle instead of I because, you know, you learn the value of those things too late, right? But anyway, dancing was another matter. She said, "You must go to take dancing lessons." There was a place in Stockton run by a Miss Snell. It was called Snell's Bungalow. [laughter] And Snell's Bungalow was a little one-room place near the high school, where in the evenings at a certain point a group of young boys and young girls were brought together to learn ballroom dancing.

You can imagine the incredible awkwardness of that for a little twelve-year-old guy who had to go to dancing school. Well, it turned out that--of course, the people that went to dancing school were the children of--well, you might say, "the right people" in Stockton. Not everyone went to Snell's Bungalow. [laughter] So interestingly enough, I reconnected with the kids that I had started the El Dorado School with because they were at the right part of town, so my mother insisted that I get reconnected to the right part of town. That was a really interesting experience because some of the girls remembered me, and guys, that we got reacquainted again, outside of the class.

LaBerge: And then you all were in the same high school together, too.

Pister: Yes, we were all in the same high school, so that reconnected us again as well. It reinforced old friendships, although, you know, at that age, those kinds of reconnections were awkward. As an adult, when you reconnect with someone that you knew before, it's usually an easy, kind of a welcome experience, but it was almost an embarrassment to see a person that you knew before.

LaBerge: And who knew you before, too.

Pister: Yes, right. Isn't that strange? I don't know if it's a common experience, but it certainly was for me. We had to get over that. So I learned to do the two-step and that's about it, as I remember at that time.

LaBerge: It's kind of a part of social history, too, because there aren't many dancing schools anymore.

Pister: I imagine. There are for adults, I guess, but not for children, yes. There were Arthur Murray [dance classes], I remember, for adults.

Stockton High School

Pister: Let me say something now about my high school experiences. For me, the high point of my high school experience was the two years that I had in the Latin class taught by a Cal graduate, from the twenties, I would imagine, whose name was Lillian P. Williams.

LaBerge: Was Latin required?

Pister: No, it was not required, but fortunately my parents had the good sense to put me in this Latin class, and I'm eternally grateful for that experience, not only because I still feel that if you really want to understand your own language, Latin is a wonderful part of that ability, that understanding, but perhaps more important for me was that Miss Williams, who was a stern person with short, bobbed hair--she really, as a young boy starting high school, began to establish for me what rigorous scholarship was all about.

She was an absolutely exacting teacher, and Latin was a perfect medium in which to demonstrate what it meant to be precise and what the answer to a question should be without any ambiguity when you're dealing with syntax and grammar in the Latin language, so that I owe her a tremendous amount for getting me on that track to understand what serious scholarship was all about.

She is a marvelous example of a kind of teacher that probably is hard to find now--you know, the single woman who really gave her life to her teaching career and found her total satisfaction in that kind of thing. I was taught largely by single women who in a sense made a vow of poverty to be single schoolteachers.

Anyway, Lillian Williams was a wonderful role model, and I want to mention here that years later, when I was here at Berkeley, and I believe it was on the occasion of either her eightieth or ninetieth birthday--I can't remember which it might have been; my mother alerted me to this--I was at the time a professor of civil engineering. I think I was chairman of my division of structural engineering and structural mechanics at that time.

I wrote her a letter expressing my appreciation for what she had done for me, and so my mother told me that she was very grateful to receive the letter, to get that kind of feedback.

LaBerge: Because high school and elementary school teachers don't often know whatever happened to [their students].

Pister: Exactly. And it's too bad that they don't because they are, more than--perhaps more than the parents in many cases, instrumental in directing a youngster in one direction or another. So that was really a landmark decision.

LaBerge: What other classes did you like?

Pister: I really enjoyed classes in English and literature. Indeed, I can't remember in what year I took some sort of an aptitude test. Of course, I enjoyed mathematics and science as well, or I wouldn't be an engineer. But at some point I took an aptitude test, and the outcome of it said that I could probably be successful either in English and literature or in math and science, so--

LaBerge: So it didn't narrow down your choices much.

Pister: It really didn't, no. The only expression of that that I've had as an engineer is that I've always enjoyed writing. I don't find it a chore to write things, and I take a certain amount of pride in what I have written when I'm required to write. So that's been at least a vicarious pleasure, even though I didn't follow that as my primary career.

I guess the other thing I would say about my high school work is that it gave me, I think, a good foundation. I took the two years of Latin. I wish now I'd taken three or four years, but then I switched to German because my mother was quite anxious that I gain some fluency in German. She had been tutored privately in German as a child, and my father learned German because his parents spoke German in the home from time to time, so that it was natural that I should learn German. So I took the two years, but I wish I had had more Latin.

Embarrassing Meeting with Joel Hildebrand

Pister: I had some very good teachers in science and mathematics. Perhaps this is an opportunity--I see I have it listed here to talk about a really interesting experience I had meeting Professor Joel Hildebrand.

LaBerge: Yes, you told me that off tape, so let's tape this story.

Pister: Let me put this story in, because it connects with my chemistry teacher. This would have been probably in 1941, before Pearl Harbor, because my chemistry teacher had gone to a meeting called Bundles for Britain, which suggests that this was before our entry into World War II. She had met Professor Hildebrand there. On the strength of that and the fact that I was one of her star chemistry students--at a time when there were only ninety elements on the periodic table!--she decided that since I was interested in chemistry that I should meet the renowned Professor Joel Hildebrand.

So her plan, then, was to drive me down from Stockton to Berkeley, and take me to the office of Professor Joel Hildebrand, which she did. I still remember Gilman Hall. I've never forgotten that experience, having lived here many years after that. Walked into Professor Hildebrand's office and sat down, and we had a very pleasant conversation, during which he asked me, "Well, young man, what are you going to do when you graduate?" And I said, "I'm planning to study chemistry."

He said, "Well, that's interesting. Where do you plan to study chemistry?" And I said, "I'm going to Stanford University to study chemistry," whereupon he said, "Well, why

are you going to Stanford?" And I said to Professor Hildebrand, "Well, sir, because Stanford has a better chemistry department." [laughter]

LaBerge: [laughs]

Pister: That was the end of the conversation, and I imagine my teacher must have felt like just disappearing at that point. To his credit, Professor Hildebrand was--at least my best recollection--he was quite gracious and said nothing about that. But subsequently he took his revenge on me because I took ten units of chemistry from Professor Hildebrand and received the grade of B in all ten units, which didn't help my GPA [grade-point average] as a freshman.

Years later--I never had the courage to--I knew Professor Hildebrand, not well, but I used to see him at the Faculty Club, and I often came close to going up to him and asking him if he remembered that experience. He probably wouldn't have remembered it from a cord of wood. But I never had the courage to go up to him, in spite of the fact that he lived to be 102 years old. So he died not knowing who that infamous, insensitive young boy was.

Postgraduate High School Semester

LaBerge: Had you planned on studying chemistry?

Pister: Yes, I had planned on studying chemistry, and then there was an experience which changed that whole direction of my studies and changed my whole life. It rested upon the fact that in the summer of 1942, after I had graduated from Stockton High School--and I'll come back to that--I graduated in January of 1942, and then I took a postgraduate semester in high school because I didn't want to come down--I decided to go to Berkeley at that point and didn't want to come to Berkeley in mid year, and so I took a ninth semester of high school as a postgraduate. I don't think there are many postgraduate high school students, but I was one.

LaBerge: You were young anyway.

Pister: I was young, yes. I was sixteen at the time. I took a semester of typing, which of course has been extremely useful. Even in the old days, when we had typewriters, it was good to know how to type, not to mention computers.

During that semester also, I had the good fortune to take a course which is probably very rarely taught in high school, a course in surveying. We had a math teacher there who had a couple of ancient surveying instruments, and he taught a course in surveying. Well, I really thought that was a great thing because I got to go outside and fool around with a level and a transit and learn how to survey.

In June of '42, when I finished my postgraduate semester, there was an opportunity afforded from the local Division of Highways. The Division of Highways was a predecessor of CalTrans, in the state of California, and because of the draft, I guess, and the war effort that was really at that point now, after Pearl Harbor, materializing, there

was a shortage of people to work for the Division of Highways. So I applied for and was given the job of an under engineering aide on a survey party that was working out of Fairfield and Suisun City.

I went with a classmate of mine, who had also taken the surveying course, who was a friend of mine from Stockton. He and I worked on the survey party together, and either his or my parents drove us over to Suisun City to meet our chief of party each weekend--we went home on weekends, but during the week we lived with the survey party in assorted rundown hotels in Suisun City and Fairfield.

Well, that experience was incredible. The chief of party was a man who'd graduated from University of Nevada as a civil engineer. He took a liking to me and taught me a great deal about the art and the mathematics of surveying. So I learned how to run the instruments and in time--I spent, I guess, two and a half months that summer in the survey party--and I really got interested in surveying. That translated into civil engineering.

Well, civil engineers do surveying, so that's great. Boy, you live your life outdoors. You don't have to sit at a desk. That shows how superficial evidence can influence a career. That happens every day in life. So I decided that civil engineering was the course for me.

By the way, the work that we were doing at that time was to develop a new highway between what's now Interstate 80 in Vallejo and the city of Benicia, the entrance to the U.S. arsenal that used to be at Benicia up through World War II. So we did the relocation of a route there. I learned how to do all the surveying for route location. That was what I call a very important decision point in my life, that summer.

So when I came to Berkeley in--

LaBerge: Now, before we get to Berkeley, can we go back and talk about--

Pister: Yes, we'll go back again, but I just wanted [to say] that was a critical event in changing my life subsequently, because I planned before that to be a chemist.

LaBerge: Did you have to reapply to--

Pister: No, in those days there wasn't the kind of pressure on admissions, particularly in 1942. I simply had to write a petition for a change of major, even though I had not applied yet, so I went from the College of Chemistry to the College of Engineering, and that was just a routine matter at that point, yes.

Pearl Harbor, 1941, and Japanese American Classmates

Pister: But I'd like to go back and pick up some things that I didn't talk about, in high school. This was essentially the transition out of high school. There were some important things in high school. I think, as I look back at December 7th, 1941, the Pearl Harbor event--which, by the way, occurred on a Sunday, when I was out washing the family car in our front yard--I remember my father came out and said, "The Japanese have bombed Pearl

Harbor." I was fifteen at the time. Sixteen at the time, I'm sorry. And he said, "Well, let them do that. Our navy will defeat them in five or six weeks."

That was, I think, a popular misconception, at least for some people at the time, because the first thing, of course, that my parents thought about was what's going to happen to our oldest son? Is he going to be in the war? Of course, at that point I had no sense of what might happen.

At any rate, that year, then, when we went back to school, and particularly looking at my commencement, which took place in January of '42, very shortly after Pearl Harbor, just to kind of recreate some of that hysteria, there was a period of indecision when the school authorities were contemplating not holding a graduation ceremony for fear that we'd be bombed or something like that.

The other thing that happened was that all of the big windows in our school were covered over with criss-crosses of butcher tape, to take care of the possibility of explosions and the glass being blown all over the place. I doubt that that would have happened. When I look back at that, Germaine, it suggests to me that so much of that was done deliberately by our government as a propaganda piece, to enthuse people or to gain people's support for the war effort.

There was still a fairly identifiable thread of isolationism at that point, even though the bombing certainly turned that around, but I think our leaders in Washington really were very anxious to get a very huge amount of momentum put together to support the war effort because of what was going to obviously happen downstream, and people were going to have to tighten their belts and sacrifice. Because if you look back, there's absolutely no sense of having the windows taped, having air raid wardens and things like that, to have blackouts when the Japanese were millions of miles away, so to speak.

LaBerge: Right, and the middle of California in a little high school.

Pister: Exactly, yes. But it showed--I mean, there was some evidence that the coast of California might have been vulnerable, but certainly not in the Central Valley of California.

LaBerge: What did you hear around the dinner table, either before that or--

Pister: All I remember is at that point, simply my father saying, "Well, the war will be over shortly because of our tremendous navy," not recognizing, of course, how much we lost at Pearl Harbor. I think that wasn't necessarily made known.

I guess the other thing at that period that now, in retrospect, sticks in my memory is the insensitivity as a young boy that I had to the disappearance of my Japanese classmates.

LaBerge: Tell me what--did you go back to school and they weren't there?

Pister: They were there for the commencement, because, as I remember--we may have to correct this--I don't think the relocation of Japanese on the coast took place until the spring of 1942.

LaBerge: I kind of think so, too, or maybe even at least February or something.

Pister: But in January--I can't remember the date in January when we graduated, but at that point my Japanese American classmates were still with us, and it was after we graduated that they disappeared. But, you know, here I was, back at Stockton High School, and I don't remember ever being conscious of that fact, looking back sixty years now, that there were no more Japanese American kids in our school.

I had many good friends among Japanese American kids, and a number of them, of course, were the brightest kids in terms of their academic achievement. They later became professional people in California or elsewhere. They were relocated. Some of them didn't come back to California, but I regained contact with a number of them.

But that was a very traumatic experience that went unnoticed by most of us, I think.

LaBerge: It wasn't something that you talked about or that you heard--

Pister: That's right.

LaBerge: You didn't hear or see--you didn't hear discriminatory statements or anything like that.

Pister: No, no, I certainly never did. And it suggests to me to be perhaps more open to what happened in Germany and why the German people didn't say to Hitler, "You can't do this." I'll come to this later, but we lived in Germany on two occasions and had many conversations about this issue, but I have a better understanding of how the Germans could have done what they did, based upon this simple, one data point that I have of the insensitivity to not quite as serious a matter, relocation, but it's certainly a serious one.

Choice of UC Berkeley

Pister: Let me see. I talked a bit about being admitted to Berkeley and changing my major. I'd just like to say something about--during my high school career, all my loyalties were to Stanford--

LaBerge: Right. I want to know how you chose Berkeley.

Pister: I don't have any idea. I think it was largely because at that period of time, Stanford had some outstanding football teams. Naturally, then as now, the quality of the football team defines the institution, for many people. So I used to follow Stanford football and was quite enamored of Stanford. I think at some point it became clear--probably my parents communicated to me the fact that, well, Stanford was financially unattainable for the child of a high school teacher.

I don't know what kind of financial aid program Stanford had at that time. Now they say there are need-blind admissions, but at that time whether they were need blind or not, I simply don't know, but my parents--it probably never occurred to them that they might be able to get financial help from the university.

LaBerge: But it was never a question that you were going to college. That was always understood.

Pister: From the time, I think, I was in the first grade, I was going to go to college, so that was never a question. At that time, if you were thinking of a university education, I guess the only public institution that made any sense was Berkeley. The College of the Pacific, of course, was close to home, but I don't think either of my parents had a great deal of respect for College of the Pacific. Plus the fact that it would have been costly to go to College of the Pacific at that time.

I don't know if I mentioned [this] but my mother had attended Berkeley for two years.

LaBerge: Oh, no, I don't think you did mention it.

Mother's Education, and Jack Abrams

[3A]

LaBerge: So your mother went to Berkeley for two years.

Pister: Right. She entered it--to be honest, I don't remember whether it was one or two years. It might only have been one year. I can't remember for sure. She graduated from Stockton High School, I believe, in 1910. She came here to study, at that time, in the field of domestic science. At that time, it would have been--was Wheeler the president about that time?[1] Do you remember?

LaBerge: In 1910. Maybe. I don't remember.

Pister: We'll have to check on that. But whoever was president at the time felt that that field of study was not appropriate for a university, and so my mother felt that she couldn't complete a program of the type that she wanted. She went to a summer session at Columbia University, I know, during that period of history, to study during the summer session.

LaBerge: Columbia in New York.

Pister: Yes, Columbia in New York, yes. And decided then, ultimately, to get her teaching credential rather than to finish her university degree. But I'd just like to comment on an interesting coincidence. My mother was at Berkeley at the same time that Sproul attended Berkeley. In fact, Robert Gordon Sproul and my mother, unknown to one another at the time, took a class together. That class was a class in sanitation, which was required for civil engineers, and I guess for some reason my mother, whatever program she was following, had to take this class.

The class was taught by a very distinguished civil engineering faculty member whose name was Charles Gilman Hyde. Charles Gilman Hyde retired in the early forties, but he was recalled, and subsequently I took a class from Charles Gilman Hyde in 1944.

1.Benjamin Ide Wheeler was president of the University of California from 1899 to 1919.

LaBerge: But not sanitation?

Pister: Yes, it was sanitary engineering. Yes, it was. Not the same course, she took a lower-division course, and I took an upper-division sanitary engineering course from Hyde. So she and Sproul took Hyde's course, I think in the old Anthropology Building, which used to be used for engineering. Was it Bacon Hall? It was that old round building up on the other side of the campus, that Birge Hall replaced. That was here long after World War II. Okay, that's one.

A second interesting coincidence that I can't overlook is this one: As a young freshman here, my mother met one of the stars of the Cal rugby team, whose name was Jack Abrams. Jack Abrams gave my mother his Big C pin.

LaBerge: Oh-h!

Pister: Which my mother gave to one of our daughters. I think there was a fairly serious interaction between the two of them at that point in my mother's life. Anyway, I heard her talk about Jack Abrams for years, and one time--he was a rugby player, I guess. That would have been it. I don't know if they played American football yet. He was a rugby star. I remember she was going to go home to Stockton, and she had a suitcase, and Jack walked her to the train station, I don't know if it was clear down to the old Santa Fe depot, but wherever she went. And he carried it all the way down, and unknown to her, he had a cracked rib, so it was very painful for him to do this, so it shows the extent of his affection for my mother.

Well, anyway, my mother left Berkeley and left Jack Abrams, so I never heard that name again until, interestingly enough, I was reading the oral history of Donald McLaughlin, and lo and behold, in the oral history of Donald McLaughlin, he mentions Jack Abrams, who was in the Class of '14, I think it was, which was Don's class. I can't remember even, at this point, the context of that remark, but he was a friend of Don's and, as I probably mentioned earlier, Don was one of my real favorites. I really had wonderful interactions with him after he'd retired and I became dean of engineering.

Importance of Family

LaBerge: That's so funny. Well, I know we have not talked about your family life and your religious background and uncles and aunts and what kinds of influences you--

Pister: Sure. Shall we go back and revisit life at Stockton in a little more depth at that point?

LaBerge: Sure.

Pister: I think that's interesting because that will tie into what I want to talk about later on. Our family ties were always very, very strong. My grandmother--in her generation, the family was everything, and everything revolved around the family. As I said, her maiden name was Grupe, pronounced "Gruppa" in German. There were Grupes all over the countryside there. They regularly met together as an extended family and spent the whole weekend

together, arriving by horse-drawn carriage, of course, in those days, so that the family was everything.

Even in my childhood, my mother's sister and her husband and their daughter, my cousin, Janet, would come out for Sunday dinner. On the other hand, my mother's brother, Paul, whose middle name, Stark, I share--that was his father's name, my grandfather's name--he was not as close to the family because there was an estrangement between Doris, his wife, and my mother and father, I think--probably more personal than is necessary to go into in my oral history.

But certainly there was a very strong sense of family that I grew up with. In terms of connection with my father's family, since they were all in southern California, we would basically travel there normally at least once every two years, to spend Christmas with the family down there. My father had three unmarried sisters, a married sister, and two married brothers in southern California. We saw a fair amount of them during my childhood. Now I want to talk about our summer experiences. One of my uncles we saw almost every summer in the mountains, going camping. I'd like to come back to that.

That kind of explains the family. We always went together on Fourth of July, going to see fireworks at Yosemite Lake in Stockton, near my Aunt Margaret's home. We always spent Christmas together, and Easter, those things, so I have a very positive recollection of big family dinners and celebrations at our place. Since we were out in the country, the people liked to come out to the old ancestral home in the country.

I must remind you--this is kind of off the wall, but an interesting experience that my mother had as a young woman--she would have been fourteen at the time--the San Francisco earthquake of 1906. She said that the fire following the earthquake was so intense that they could see the light in the sky behind Mount Diablo from Stockton.

LaBerge: Wow.

Pister: That's just as a prelude to what happened subsequently. There were many relatives of my grandfather in the San Francisco area. A number of the young people--the children my mother's age and some of the other parents came up and lived at our old home place after the earthquake, while things were getting reconstructed in San Francisco. So from my mother's standpoint, it was a grand lark because she had all these cousins coming up to be with her. She had some very favorite cousins that lived in San Francisco, and they spent time there until they were able to reestablish themselves in the San Francisco area again.

Religious Background

Pister: Okay, getting back to home again, you asked about our religious experience in the family. That's an important issue. I was baptized in the Congregational church in Stockton by, I think, the same pastor that married my parents. As I child my brother and I attended the Congregational church with my mother. My father had little to do with institutional churches. He felt that his church was God's creation, and he didn't need anyone to intervene between him and his Creator. So he rarely set his foot in a church.

But my mother took us to the Congregational church. In those days, at least in Stockton in that particular denomination, the kids all went to Sunday School. We didn't actually go to the church service, which was a blessing. Those experiences were very good. I learned Bible stories and learned about Christianity--from a child's viewpoint, what it amounted to. We always went to the midnight services and heard Christmas music on Christmas Eve.

I remember at one point attending Sunday School for forty straight Sundays and getting a gold pin for not missing a Sunday, which was a kind of an interesting experience, in retrospect. I think I still have that gold pin somewhere at home.

LaBerge: Was it something that you enjoyed doing, or did your mother have to drag you?

Pister: Well, certainly, I think it was pretty much my mother's will and her direction, saying, "It's time for you to go to Sunday School, boys." It wasn't something that we really necessarily looked forward to. But it wasn't, I don't think, an unpleasant experience; it's just there would be other things you'd rather do than go to Sunday School.

What we have discussed would be essentially a reflection on my experience up until the time I went to high school. When I went to high school, I didn't go to church anymore except on the ceremonial occasions, but the YMCA sort of became the surrogate for the church. That's why, in retrospect, I think it was a very important experience because it was a different kind of religious experience. It was a much more holistic experience than you'd find just attending a regular service in a church.

Jumping ahead, when I went to college, of course, I abandoned religion, and during the time I was in the navy, and I'll come to that later on, I totally went in another direction. But just coming back to that, as we talk about my life after returning for graduate school, I kind of bounced off the wall in a new direction that was very, very significant in the latter part of my life.

Camping in Tuolumne Meadows

Pister: Okay, let me see what else. Oh, there's something I'd like to discuss--again, because this kind of connects to religious experience, spiritual experience. I'd like to talk a bit about the summers that I spent with my family, camping. Beginning in the summer of 1932, when I would have been seven years old, my mother and father, [and] my brother and I went camping in Tuolumne Meadows. I don't know if you know Tuolumne Meadows.

LaBerge: Yes, I do, yes.

Pister: It's a very special place. Even today, I can hardly talk about it without being a bit emotional about it. We went there every summer for ten years, right up to the first year of the war. We camped anywhere from three to six weeks in Tuolumne Meadows.

LaBerge: Because, of course, your father had the summer off.

Pister: Yes, right. Sometimes he worked during the summer, part of the summer, doing things for the school district, but normally he had the summer--well, he wasn't teaching.

LaBerge: I'm sure he had other things to do.

Pister: Right. But I understand what you said. But that experience, camping there with my parents, had a tremendous impression on my life. I climbed a lot of the peaks in Tuolumne Meadows. I went fishing with my father. We'd get up at three o'clock in the morning to get an early start and hike for two or three hours to a remote lake and go fishing. In those days, there were fish galore up there, and I learned to fish with my father when I was seven. Caught my first trout at a lake called Dog Lake in Tuolumne Meadows. I have a picture of that, of course.

It was just--my father, and then my Uncle Carl from Orange and his wife typically would come up and camp with us.

LaBerge: Is it somebody you're named after, Uncle Carl?

Pister: Yes, with a C. He's a C Carl. They never had any children, and so my brother and I were kind of adopted children of Carl. He was a wonderful outdoorsman, and I learned a lot from him about life, about camping and all. But anyway, those summers were tremendously impressive on me. There was something about the constancy of the surroundings. There was a tremendous stabilizing influence on my life, that every year we'd go back and here these majestic peaks were still there as I remembered them, and the river and the campgrounds and all. We sometimes would create tent poles out of tree branches. We'd try to hide them and get the same ones the next year.

My father was a tremendously inventive, entrepreneurial camper. He made a special trailer that we hauled with all of our camp gear. He made the most elaborate camp, and people used to come and look at it because he was such a creative tent and camp maker. He made an early version of a tent trailer. He built a frame that was collapsible and had a canvas person build the canvas around it with two bunks on the sides, things that later on became commonplace in this country, but he had them back in the thirties.

In those days, the road to Tuolumne Meadows was the old Tioga Mining Company unpaved road from a certain point in the park--I remember going through Carl's Inn and White Wolf on Highway 120, I guess it was, and hitting--there's about twenty-some miles that were unpaved. In the early days my father had an old 1925 or so Buick pulling that trailer, and the carburetor used to get a vacuum lock on it, and the car would stall, and here we'd be, stuck on this grade, on a sandy road. I remember once my father had to have all of us get out of the car and get behind the trailer and push as he tried to get the car started. It just seems impossible today that those things happened in one's lifetime.

But anyway, those summers were absolutely, I think, one of the most impressive and influential periods of my life. The starry dome up there, with no pollution in the air, and the pristine beauty of that area was something that--what I'm trying to say, I think, Germaine, is that it brought me as close as I've ever been to the act of creation. That's the sense that I have. As I've gotten older and gone up to our cabin on the Carson Pass in more recent years, I can get some of that feeling back again, being close to creation.

So that summer experience was a wonderfully formative part of my life. My mother and father certainly deserve a lot of credit for hauling us up there. My mother particularly, for putting up with family, cooking in those days with primitive appliances and washing the clothes in a washtub.

LaBerge: Right, and hauling the water. Well, you probably had jobs, hauling the water and--

Pister: In those days we had to haul water. Of course, in those early years there were nothing but pit toilets around. There was no such thing as a sanitary system up there yet, so everything was fairly primitive. But it was certainly a wonderfully formative experience.

LaBerge: Did you take other trips? I knew you went to Orange County. Did you leave California?

Pister: You know, there are only two other trips that I can really remember, although I think we did go one summer to Pinecrest to camp, and my father hated that because it wasn't high Sierra, and it was hot and dusty and things like that. And once I remember we went camping up in the Sonora Pass, at the Dardanelles, and we managed to pick a year when there was a yellow jacket infestation. I think they had to terminate that camping trip.

We once made a trip up to Washington, to Diamond Lake, to camp up there. That was back in the very early thirties, because my brother was still in diapers, I remember, and he, among other things, stepped in a bed of ashes and burned his foot badly. My mother, of course, and father were stuck with that problem, but he survived that all right.

And once we went down to the Kings River Canyon, to Cedar Grove. We spent one summer at Incline Beach at Lake Tahoe, at a time when there was no Incline Village. There was a public campground at Incline Beach, and we had a wonderful summer there with the Herring family, also a high school teacher, a family with three daughters, one of whom my brother married (Martha).

LaBerge: Oh! [laughs]

Pacific Grove

Pister: The only other trip experience that I have anything like a clear recollection of--again, that ties into something that happened much later in my life--was a trip to Pacific Grove with my brother, mother and grandmother. This would have been sometime in the 1930s, when my mother and grandmother drove down my brother and me--my father was working that summer or that period of the summer, and we spent a few days, perhaps a week in a rented cottage in Pacific Grove. Remember, Pacific Grove was a Methodist retreat, and there were little lots originally developed to put tent cabins on. By that time, the tent cabins were replaced by very primitive summer cabins. We stayed in one of these.

I remember this interesting thing: my mother having to put money into a slot to get the gas stove to work, and being admonished by the Pacific Grove police for shooting firecrackers off on the Fourth of July downtown and being told you could only do that at

the beach. So my mother took us down to Moss Beach, which is down, I think, now where the Spanish Bay is, that big development near Asilomar.

The other thing I remember about that period is that I really finally learned how to swim and breathe at the same time. I had taken swimming lessons at a pool in Stockton, my brother and I, but I had never learned to breathe right, and I was always swallowing a mouthful of water. Down there in the sea water--there was a public pool with salt water, and I learned not to swallow the salt water, finally. That pool is filled in now, but the old bath house is still there.

LaBerge: Oh, I know where it is, yes,

Pister: At Pacific Grove. The reason that this particular incident is significant in my life is that my mother had recollections of the Del Monte Hotel in the twenties, when she visited, and there was a wonderful maze there, a boxwood maze that had been created on the grounds, and she was always telling me about that maze, so we finally got down there. She went up to inquire where the maze was, and the gardener said, "Oh, ma'am, that disappeared long ago, when the hotel burned down." I think the Del Monte has burned down at least once, maybe twice. Of course, now the Naval Postgraduate School is there. I've been on the grounds many times since then, to visit the postgraduate school.

It's a very special place, and my wife and I really enjoy going there now. I can talk about that later on. But I don't know--the only other thing in my early life that I haven't talked about is the period when I was a horseman. As I might have mentioned, my Uncle Paul was really given the responsibility for running the ranch for my grandmother. At one point in the 1930s he basically created a riding academy. We had a stable of horses there, and he had people teaching riding. We had people come out on the weekends and during the week to take riding lessons.

At that point, my parents bought me an old pony, or horse, called Buffalo Bill. And so I rode Buffalo Bill and rode him in the county fair one or more occasions and generally enjoyed that kind of life that I suppose city kids would have given a lot to enjoy. I took it as a matter of course that people had horses and learned how to ride them. At some point, either I lost interest in riding or Buffalo Bill lost interest in being ridden, and we parted company. I don't remember when that was or what happened, but poor Buffalo Bill probably went to an end that I'd just as soon not know about.

LaBerge: Is that a good place to--

High School Offices

Pister: Well, let's see. The only thing I've left out, going back in my high school experience, I see that I left out--

LaBerge: The elected offices?

Pister: Yes. There's some things that happened there that I probably ought to make clear. During the time I was in high school, I guess in my junior year first, I ran for student body office. I was, I think, first elected to the office of Commissioner of Athletics, which I can't remember the duties of. But that was an all high school election, and I served on some student council as a result of that. And then I was elected to the office of Commissioner of Welfare, which meant that I had to have a group of people that, during student assemblies, stood around the sides and tried to keep people quiet.

LaBerge: Right! [laughs] I've done that, too!

Pister: Also, as I remember, we had a judicial responsibility in terms of student discipline that was somewhat more substantive than just telling people to be quiet. That is, as student welfare officer and the student welfare committee that I had, we were supposed to be on the lookout for and report any infractions of the code of conduct of students. That was quite an assignment because--

[3B]

LaBerge: The most serious offense was to be caught smoking.

Pister: To be caught smoking. If you were caught smoking--not smoking on the school grounds. I mean, no one would dare to do that in those days. But even within some--I don't know what undefined boundary around the campus, like an eating establishment or anything like that, if you were smoking there that was a violation of the student code of conduct.

I remember in my aggressive moment of taking my--

LaBerge: Your responsibilities--

Pister: --my truth squad to local eating places and barging in and pointing the finger at students who were smoking, and putting them on report. In retrospect, I'm amazed that I would have done something like that, but anyway, that was not necessarily a great remembrance of a student body office.

The last thing I guess I want to remember is the fact that I was selected, along with a classmate, a girl--I guess it's all right to use the term "girl"; in those days it was perfectly okay to say a girl, a young woman now--to be the class valedictorian at my commencement. I remember the dismay of--what do they call the course? public speaking--the rhetoric or public speaking teacher at my selection because I had not taken her course in public speaking.

But I was selected nevertheless to give one of the two valedictories. Well, that teacher really took it out on me, in retrospect. She had me going around giving sample speeches with a pencil in my mouth. Who was the Greek who put the pebble on the tongue? Anyway, that was what she was trying to teach me: proper diction and to really use my entire mouth when I spoke so that I would do this properly.

Well, I chose a topic that had to do with science and the world of the 1940s. I could still remember--

LaBerge: Do you still have the speech, or you just remember?

Pister: I can't imagine that I'd still have the speech, but I remember basically writing the draft of that speech--it must have not been the first draft, surely, but working on the draft of it in the Christmas of 1941, which we spent down at my aunt's house in Orange, my father's home, because I was going to give that speech in January and I was trying to refine it there, and it kind of wrecked my Christmas vacation, looking back on that now.

But at any rate, I gave a speech in which I basically prophesied the role of science in the world of the time, the 1940s, and I remember making predictions that we're going to run out of oil shortly, and we had to have these substitutes; and that we wouldn't be growing things in soil, we'd be growing them in water; hydroponics was going to take over agriculture; lots of things like that.

I still remember the opening paragraph of that speech, as a matter of fact. I've never forgotten it. The teacher, of course, rewrote great parts of it and insisted that I do it a certain way, but anyway, that was my hail and farewell to Stockton High School.

So I think that probably--

LaBerge: It seems to me you picked all the most significant things out here. So next time shall we start with Cal? In the meantime, we might think of something else.

Pister: Yes. You can go back--

LaBerge: And there are other influences.

Pister: Well, you please push me or whatever you want to do.

Reading and Studying

LaBerge: One question: Were you a reader? Did you love to read?

Pister: Oh, yes. We didn't talk about reading.

LaBerge: Is there time?

Pister: Sure. Oh, I'm glad you mentioned that. At a very early age, my mother made a practice of taking me to the San Joaquin County Public Library, to the children's department at the beginning. She would go in with me, and she'd let me roam around and pick out a group of books for me to take home. I could take home four or five, something like that.

I remember the books that I really enjoyed were the books of a writer named Howard Pease. Howard Pease wrote sea stories for boys. They were kind of a young boy's version of Nordhoff and Hall's *Mutiny on the Bounty* and *Pitcairn's Island*, which I read later on as I got older. But these were adventure stories for boys, and they were typically on old

freighters and there would always be a murder and you had to figure out who the suspects were and how they finally brought them to justice and all that. They were great books.

So I learned the importance of reading and the incredible way that one could expand your understanding of the rest of the world by reading, because you could put yourself in these situations that you could never experience yourself.

I also remember essentially the graduation, of moving from the children's department to the general public library and getting a real library card then. It used to be a little cardboard card with a metal part on it. I guess that was part of the stamp that the librarian used to stamp? That was such an important thing.

And I loved books on mountaineering and all. I read all the early accounts of the attempts to climb Mount Everest. I got really engaged in that. Mainly reading about out of doors and adventures sorts of things. I don't think I did a great job with the classics, but certainly there's no question my mother really encouraged me to learn to read and to appreciate the expansion of your experience that you could gain from reading. I've continued. To this day, I love to read.

I didn't mention also, in terms of particularly my high school experience--in our home in Stockton, our old Victorian house, we had no central heat. That was typical, of course, of those old houses. We had a fireplace in the dining room, which was kind of--today we call it almost a family room, because your whole life centered around that room because it was the only heated room in the house.

The fireplace was replaced--my father put a metal screen on it and brought in first a coal- and wood-burning stove, and that was the source of heat for the house, and then later on that was replaced by an oil heater. But they were just room heaters, and that was it. I remember the winters in Stockton, those drippy, cold winters, going up to my bedroom and absolutely--you'd think you were going into a refrigerator because there was absolutely no heat upstairs in this old fourteen-room house.

So that was a profound experience, which in a sense leads me, then, to talk about studying and the role of my parents. My parents put a desk in our dining room, family room. It was a large room with high ceilings, a typical Victorian room. And that desk was my study desk, and all my books and papers and stuff went on that desk. Well, depending on what the homework assignment was, I appealed either to Mother or Father for assistance. If it were mathematics or science, it was my father. My dad--I wished he'd been able to study calculus and mathematics because he loved it and he was really good at it, but he never went past geometry.

But he was a whiz at math, and when I took geometry I managed to go through that course--I think I only missed half a problem the entire semester in geometry because my father was looking over my shoulder. If I couldn't prove the theorem, he proved it and showed me how to do it. So I had a wonderful mentor at home.

My mother was a wonderful helper for English and literature. She often did preliminary research for me. She said, "Well, here are some things that you might want to look at" and [would] suggest titles to me, and she corrected things. So I had tutors at home every single night, if I needed them. And if I thought I didn't need them, they often inquired, so

there was no question that they were tremendously influential in setting me in the right direction. So I really owe them a lot because they not only valued education, but they stood behind that value and made it clear to me and my brother that we better not take this lightly.

I have another recollection, which I don't want to forget--well, we had in our dining room a blackboard, a real slate board, about so big [demonstrates], about maybe three feet wide and two feet high, with a chalk and eraser there. That was basically the place, the medium through which the family communicated important matters. On weekends my mother or father would write down--these are chores for the weekend that we'd have to do--they'd be up there a week and [we would] erase them when we did the chore. Or dates that we had to remember, events that we had to do. Sometimes we used it for doing homework, explaining homework or something like that.

Dating

Pister: Well, as I got older, in particular after I had become sixteen and gained my driver's license, the one recollection I have is basically writing down once, announcing to my father and mother: "These are the dates when I need the family car."

LaBerge: [laughs]

Pister: I think perhaps in my senior year in high school, when I really think my chronological age and my socialization kind of caught up one with another, I guess my social life rose to such a level that at one point my father once said to me, "You're nothing but a lounge lizard."

LaBerge: [laughs]

Pister: I wore the suede shoes, the brown and white suede shoes. I dressed, probably, for the time, as a teenager would have dressed: casually and all. And so I think I probably behaved very much like the teenage--

LaBerge: A normal--

Pister: A normal teenager.

LaBerge: Right. I was going to ask you whatever happened with that socialization.

Pister: I think probably it wasn't until my senior year in high school that the hormones flowed finally, and I had enough self-confidence that I started to date. I still remember one of my first dates. I took a classmate to a football game in Lodi. I borrowed my grandmother's car. My grandmother had an old Model A roadster, or coupe, I guess, coupé. And I borrowed that car to drive into Stockton to take the train to Lodi, to go to the football game.

I didn't tell my parents I was going to pick up this girl and take her along with me. Of course, I made the fatal mistake of failing to tell them and failing to notice that--after we came back, we went to the drive-in, which was a typical thing in those days, and she blotted her lips with a napkin with lipstick on it. It was left in the car. My parents said, "Did you have somebody with you?"

LaBerge: [laughs]

Pister: I remember my dad saying, "For heaven's sake, why didn't you tell us? That's perfectly okay. We would like to know what you're doing. You don't have to hide this." But that was the first date I ever had, I think.

And then I had--this is getting very personal, but still it maybe displays a quality of mine that--I do think in a very standard way all the time, and I'm habituated to certain modes of behavior. My wife would certainly agree with that. I dated in high school, I think, only seriously two different girls: this first one, who was the editor of our yearbook, and I worked on the yearbook staff as a photographer, so we got to be great friends, and we dated. I don't remember what was the end of that.

But then I dated another girl, whose father owned a clothing store in Stockton. She lived very much in the "right" part of Stockton. They were relatively well off financially compared to us. She and I dated when I was a senior, half of my senior year and a postgraduate semester. Ultimately she went off to Stanford and I went to Berkeley, and that was the end of that.

But I still remember that experience. As I say, her father owned a clothing store. They had a lovely home in west Stockton. I remember showing up there once, at a formal dance, so I'd have a tux, which I think was my uncle's tux--I had no tux; it didn't occur to me to rent one--or probably I couldn't have afforded to rent one. But my mother insisted that when a gentleman goes out with a tuxedo on, you have to have a topcoat, along with the scarf, the whole thing. So I had, of course, my uncle's tux and I had no topcoat. My father had an overcoat, so my mother--it was this real massive overcoat--so she had to move the buttons on the overcoat.

So I came in--this was, like, June in Stockton, with this huge overcoat and my uncle's tuxedo!--to the home of the guy who owned a clothing store in Stockton!

LaBerge: [laughs]

Pister: He and his wife--when I left, they must have just absolutely been hysterical because of what this poor kid was going through because of his parents.

Anyway, so I had two girlfriends in high school. I didn't have another steady girlfriend until I met Rita at Berkeley, and we can come to that later on. So I've only had three serious affairs in my life.

LaBerge: Is that a good time to stop?

Pister: I think that's a good time.

LaBerge: Okay, so we'll start with Berkeley.

Pister: Yes. That'll work out well.

[End of Interview]

II. UC BERKELEY, 1942-1945, AND NAVAL SERVICE DURING WORLD WAR II

Residence at Palm Lodge, and Social Structures

[Interview 3: January 25, 2002] ## [4A]

LaBerge: Well, we got you through high school and through your infamous meeting with Joel Hildebrand. You mentioned that it was a little traumatic being a freshman at Berkeley, the transition. Why don't you tell me about that?

Pister: Yes. Let me step back a minute. Remember I put this in context: I graduated in January of 1942 and went on for a postgraduate semester at Stockton High School, and then was fortunate to get a summer job that changed me from chemistry to engineering at Berkeley, civil engineering in particular, based on a summer experience. So thanks to my mother who had a friend whose son had preceded me at Berkeley, she located a boarding house on Hearst Avenue. She succeeded in getting me placed in that boarding house. I had absolutely no input at that stage of my life. That was something that parents did.

The place was at 2251 Hearst Avenue. It was the northeast corner of Hearst and Spruce. It's long since disappeared. It was a multi-storied typical Berkeley twenties shingled residence, I'm sure, that had been turned into a boarding house, which was fairly typical of Berkeley in those days. There were no dormitories really. Bowles Hall existed. The co-ops existed. But there were no university-sponsored dormitories.

The name of this place was Palm Lodge. The proprietor, proprietress I should say, was a widow whose name was Mrs. Gallagher. Mrs. Gallagher had an assistant known only to me as Mary. They basically ran Palm Lodge. There must have been, I don't know, perhaps twenty young men that lived at Palm Lodge. I was put in a downstairs room, actually a large study room with a wash basin in a corner and a sleeping porch. There were four of us in this room.

By coincidence, one of the four was a high school colleague of mine, a fellow named Ernest Ware, whom I've lost track of at this point. Ernie graduated with me at Stockton High School. I don't remember how he got there. But the two that we joined were twin

brothers from Lowell High School in San Francisco, Roland and Frank Grannis. Roland and Frank were very savvy about the Bay area and all. Coming from Lowell High School, which was at that time and still is a very fine academic institution, they were really plugged into Berkeley. Whereas I was much more remotely plugged into Berkeley, to use that expression. I'll say a lot more about my roommates, particularly Roland Grannis, Ro Grannis with whom I spent actually the next two and a half years as we stayed at Berkeley.

I might say just a few things about the life there. It was an interesting place to live in a boarding house with a bunch of guys. For example, you came in late in the morning, somebody was bound to have dumped part of your cold cereal bowl into their cold cereal bowl, and you wouldn't get your ration of cold cereal. Sometimes when stuff was served, if you were at the end of the serving, family-style serving, you suffered.

LaBerge: Did the ladies have rules?

Pister: Yes, they had rules like no fighting in your rooms, and there were kind of quiet hours, and generally it was a fairly well-behaved place, I must say.

LaBerge: But any hours?

Pister: No. There were no hours. There were, well, I could jump ahead. There were rules about bringing in non-Palm Lodge persons. I remember that fall at the Stanford-Cal game in 1942, one of my high school friends brought my high school girlfriend--we were still in touch at that time. I think I spoke about her--

LaBerge: You did.

Pister: --earlier. She was still finishing high school, I guess. Anyway, they came down for the Big Game. I don't remember--she stayed somewhere else. But my friend, whose name was Marshall Windmiller, is now an emeritus professor at San Francisco State--Marshall had to stay somewhere that night. So remembering the rules about bringing strangers in, we had to wait until it got dark, and Marshall climbed in through a window and slept with us that night in Palm Lodge. So that's--

LaBerge: So just for historical purposes, absolutely no women?

Pister: Oh, are you kidding? If a female had appeared at the door, Mrs. Gallagher would've spirited her out of there. She was a fairly portly woman and of substantial stature. It wouldn't have been a problem for her to get rid of a young lady. The other thing I'd mention was a kind of social side; there were certain things that Mrs. Gallagher observed. For example, with Thanksgiving or something--it might not have been Thanksgiving. But for some occasions we were supposed to dress up. She put on a long gown and played the piano, and we had a festive occasion. It was a very interesting kind of structure.

The other crazy thing that I want to recall was the following. The mail was put out on a table, sideboard of some kind, in the entry part of the lodge. One day there was a strange kind of half-falling-apart package there that was delivered to me, ostensibly. It was a piece, not a piece, like a fifty-foot-garden hose. I wondered what in the world, why did somebody send me this garden hose? So I looked at the name on it, and it wasn't K. S.

Pister. It was K. S. Pitzer, who was Kenneth S. Pitzer who was then at that time, I think, still a young assistant professor of chemistry at Berkeley. I knew his name. So I gave it back to the mailman. But anyway, many years later I told that story to Ken. We became colleagues at Berkeley, although he had an illustrious career away from Berkeley. He returned, and I told him this story. We later served on committees together in fact. So that was a strange incident in that period.

I joined Berkeley in October of 1942. That was Berkeley's beginning of its trimester, wartime trimester academic calendar. Sometime in that fall, the draft now was alive, and the shortage of manpower became a problem for institutions. Particularly Southern Pacific Railroad needed workers just to work on the tracks. So I don't know, my friends, the Grannis brothers learned about this, and so we all, we, the three of us, went down on the weekend. Typically I think we went on Saturday or Sunday. It could be both days, early in the morning and took the street car down to the Oakland Mole as it was called in those days where the SP trains came in. We worked on the track for the day. I can't remember, we got for the time some astronomical figure like maybe three or four dollars an hour or something like that for working on the weekend, just shoveling gravel, moving ties, learning how to pick up a rail with about twenty people with tongs picking it up. So it was kind of an interesting experience.

I should add that at that point, the registration fee at Berkeley that I paid was twenty-seven dollars and fifty cents a semester. For students in engineering or in chemistry, there was a twenty-dollar lab fee. So it was forty-seven fifty a semester. My room and board at Palm Lodge was, I believe, forty-two dollars a month. My parents, of course being school teachers, didn't have a great deal of money. So anything I could do to earn money myself would offset what they had to send me because I was entirely dependent on them as my resource base.

The other thing I remember about that period was that there were no laundromats, of course, in those days. So my mother I guess from her own experience perhaps bought me a mailable laundry box. I wonder if they still exist. But it was a canvas device with an inside frame of some kind. It was just cardboard and a place for a reversible mailing label on it to me and back to my mother. Every so often I would mail my dirty laundry to my mother, and she'd send the laundry back, usually with some kind of baked goods or something along with the clean laundry. Today that just sounds--

LaBerge: People wouldn't believe it.

Pister: So bizarre. I remember the postal station was the then drugstore at the corner of Euclid and Hearst Avenue. It was a drug store way into the fifties before it became something quite different now. Anyway that was a kind of cultural experience. Well, perhaps Germaine, I should turn to the academic side now.

Academic Life

LaBerge: Well, have you talked enough about the trauma you had your freshman year?

Pister: That's part of the academic. The other thing, I guess--well, let's talk about the academic. My first semester, the '42-'43 winter semester, was really a disaster for me. I think my first semester grades were something like, I got a C, a couple of B's, and I might have received one A. For a person who had been a California Scholarship Federation person and valedictorian and all that, it was a traumatic experience. The most difficult period or difficult experience was the problem that I had with what was then called Math 3A, analytic geometry and calculus. I absolutely struggled with that course in part because the instructor that year for my section was a person that I later learned to work with and know as a colleague in mathematics, Hans Lewy. Hans was a refugee from Poland, and so there were two kinds of abstractions for me, the mathematics and the language that he used. I had trouble understanding him and understanding the content. I went into the final examination in that course with a very clear failing grade. But I managed over the Christmas vacation to get another book and study diligently by myself through this other book, and by a miracle I pulled a C in the course.

Well, so that was a very difficult beginning for me. In thinking about it, I believe it was a question of being away from home, totally on my own, in a very new circumstance. All during my high school years, my parents were looking over my shoulder to see if I was studying. This newfound freedom, so many distractions and all, and perhaps in part of the uncertainty of the war--we'll come into that directly. It was more than a seventeen-year-old kid, at least this seventeen-year-old boy could handle. I didn't know how to use my time wisely.

LaBerge: I think that happens to most people.

Pister: In looking back, it was that experience that later on in my life here at Berkeley and downstream from that at Santa Cruz and the president's office gave me a much better understanding and an empathy for the cultural problems of educationally-disadvantaged students coming to Berkeley. I wasn't educationally disadvantaged. There was a cultural shock. When I think of Chicano students and African-American or Native-American students coming here as the first generation to go to college, I can see very strong parallels there, for different reasons perhaps, but in the problem of adjustment to very strange and different--often threatening environment. So I think that was part of it for me.

It wasn't just the instructor. It was the environment that I was trying to learn at Berkeley. Fortunately to go on in my second semester of mathematics, I had the first female teacher that I had at Berkeley. I can't remember her name now. She taught Math 3B, and she was a breath of fresh air. I could understand her. She was very logical in the way she presented the course, and I got a B in that course. But then to complete that, fortunately then in my sophomore year, I took an accelerated mathematics program. I can't remember the name anymore, but it was a combination of the second year of mathematics and a course in differential equations. I had the good fortune of studying with a very well-known mathematics professor here, Thomas Buck. Thomas Buck was a single man, English, lived at the Faculty Club, I think, during his life time. He was a superb teacher. Much to my satisfaction and pleasure, I received ten units of A from Thomas Buck, which restored my confidence in the use of mathematics, which by the way looking ahead, I found was virtually unnecessary in my junior and senior years in engineering at that time--which is an issue of what happened in engineering education at that time in history, as opposed to what happened in the post-war years.

Army ROTC and Enlistment in the Naval Reserve

Pister: The other interesting thing about that period was, of course, at that time, all male students had to take ROTC. So I was enrolled in Army ROTC. That meant taking a course in military science and tactics. Since I was an engineer, it was oriented toward engineering. It was taught by a Major Hurley.

LaBerge: Did you get credit for this?

Pister: Oh yes. It was a credit course. We had to put on uniforms and drill, and I found it to be a fairly interesting experience, really. Some people hated it. But I wasn't upset by it. One of the good things that happened in that ROTC course was that I met a fellow civil engineering student who in fact became a lifelong friend and colleague, and his name is Caleb McCormick.

LaBerge: Caleb?

Pister: Caleb. Yes. I'll come back and talk about him later on because Caleb and I went through the navy together and then some graduate school. His family and my family have been friends ever since that period up until my most recent social event of our fifty-first wedding celebration which he and his wife attended. Let me see what else?

LaBerge: What about extracurricular activities like track and handball?

Pister: That's right. Let's see. During the fall of '42 and spring of '43, I joined the freshman track team. There's a picture with the freshman track team in the *Blue and Gold* of that period. I attempted to run the mile, quite unsuccessfully. I don't think I ever placed in any meet. In fact, I developed shin splints and had to go to the trainer to get my shin splints relieved. At least I worked out regularly, and that was a good thing for me, but I certainly set no records or made any impression on anybody.

LaBerge: But did it mean you were traveling around the state?

Pister: No, at that period--see this was wartime.

LaBerge: Wartime, that's right.

Pister: We had meets with high schools and since we were freshman track, high schools in the area. I had run on the cross country team in high school. That's what encouraged me to run. But the fact that I worked out regularly was quite a help to me when I went on active duty in the navy program the next year because I was in good shape.

LaBerge: And what about handball?

Pister: The handball didn't--I'll come to that later. I didn't really get involved in playing handball until 1943 or '44 after I got in the navy. Probably the most important thing in that freshman year that happened outside of my academic work was the decision that I made along with my roommate Ro Grannis to enlist in the naval reserve. I was coming up on eligibility for the draft, and that was not a prospect that I really looked forward to, and the

navy came out with a program. It was called V-1 at that time. If you enlisted in the navy V-1 program, you were permitted to finish the academic year that you were in. You were going to be eligible for a program that really hadn't been totally disclosed yet, but was certainly under active design in the navy department called the V-12 program. It was a program that would basically put you on active duty and allow you to continue further education. It was designed by the navy in anticipation of a prolonged national emergency where the navy would need substantial numbers of officers to fulfill its mission.

So I decided to enlist in the navy. Since I was only seventeen, I had to have my parents' permission, and I know my parents really agonized over signing that document to allow me to enlist. But in retrospect, it was certainly one of the most sensible things that I ever did. So I was sworn in to the navy on December 7, 1942, up in the old Cowell Hospital. That put me in a class called V-1, which meant that you were deferred from active duty for some period of time, which turned out to be July 1, 1943.

LaBerge: Okay. Not very long.

V-12 Program at Callaghan Hall

Pister: So what happened then is that across the country there were 120-some institutions that were designated by the navy. The navy entered into contracts with these institutions to provide training for a core of students in a program called V-12, which was designed to amplify or enlarge the officer corps of the navy. At Berkeley, the V-12 unit was housed in the International House, which was renamed Callaghan Hall after Admiral Callaghan. That's where the navy students were housed. Both V-12 students and then the NROTC students who were already in either lower division or upper division NROTC, were also housed there. They were put on active duty. Then there was an active duty Marine Corps component, and the marines lived in fraternities around the campus, largely the fraternities along Piedmont Avenue.

LaBerge: So in other words you lived with the group. You didn't live at the boarding house anymore?

Pister: No. No, on the first of July '43, we all, all the V-12 people moved to Callaghan Hall. Yes. So I reported for active duty, as I said, and was assigned to a room in Callaghan Hall on July 1. That was a really interesting experience. You can imagine. The university contracted with the navy, and they put two people in each of the rooms. They had to bring in all of the bedding, the bunks. They set up the mess hall--we ate in the auditorium of the I-House, Callaghan Hall on like--

LaBerge: And you're talking about the same I-House that's there right now?

Pister: Yes. That was built in the thirties, that I-House. Yes, the same one exactly. So it was transformed into a naval station basically--complete with a Klaxon on top that blasted off in the morning at six o'clock, I think, when we got up, and called us to the different assemblies that we had to attend and all. I'll talk more about it--really apart from the importance of the program, it was a life-changing series of events for me.

Apprentice Seaman in Navy V-12 Program, June 1944

It was an interesting experience because many of the staff, the officers that were appointed to these units, and specifically this unit, and the staff members were very recently commissioned naval officers or appointed chief petty officers. The captain of the original unit was a Captain Keyes, who had been, I think, the NROTC senior officer here. He moved up there. He didn't stay. I'll say more about that later.

But the other officers, by and large, were people some of whom were just called into active duty and didn't know a lot more about the navy than we did. The petty officers, the chief petty officers were more or less recruited from colleges and universities from athletic departments. They were often former Olympic people. They were professional wrestlers or football players, and they were one tough bunch of guys to deal with, and they made life absolutely miserable for us in one way or the other, typically. So in time we got uniforms. It took a while to get uniforms and to get the whole thing routinized, but to their great credit, the whole thing got going, and we started our academic year, the summer trimester in July '43.

LaBerge: So were you all taking the same classes?

Pister: No, oh no. That was, I think, the incredible insight of the navy, and all of this, by the way, to just make an editorial note, there's an excellent book on the history of the V-12 program written by James Schneider. The officers responsible for conceiving and developing this program, I think, were absolutely brilliant people in foreseeing the possibility of having two really very disparate bureaucracies, the universities and colleges of the United States joining together contractually with the navy department, which is a whole different set of structures and bureaucracy. To make that happen and to deliver education and in other words help to develop the officer corps that was needed for the war effort. It was a brilliant conception. No one of the other services came close to doing anything like that.

Regular Degree Curriculum and Navy Structure

[4B]

Pister: Okay, the program was set up such that certain fields of study were given more semesters of college than others. If you were an engineer, you were given the maximum, and I enjoyed the possibility of completing my undergraduate degree before I went back to officers' school. It depended on how many semesters you had acquired already and what field you were in. People in Letters and Science typically did not graduate, but they were sent off to officers' school earlier. But if you were an engineer, essentially if you followed the curriculum of the institution, that satisfied the navy with a couple of exceptions. We had to take a course in naval orientation, and that's understandable to learn naval customs and courtesies. That was a big thing, and naval history--we had some of that. The other thing that was required, ironically was not required in engineering at Berkeley. It was required by the navy, you had to take one semester of English.

LaBerge: Isn't that something?

Pister: Yes. It was.

LaBerge: But that's changed in engineering now, hasn't it?

Pister: It's changed. Yes. But I might mention at the time I was admitted to Berkeley, there were only twelve elective units out of a hundred and thirty-two semester units, we're talking about now. If you passed a Subject A, that was it. Speaking of Subject A, I don't remember if I mentioned my Subject A experience in high school. I think I--

LaBerge: I can't remember if you did.

Pister: I can't remember. But I ought to put that in because it's the kind of thing that drives parents crazy. The Subject A exam at the time of my graduation was given at the then-College of the Pacific in a big auditorium there. The night before the Subject A [exam] was some kind of a high school dance to which I took my girlfriend. I remember coming home, reaching our home at two a.m. of the morning of the Subject A examination, to find my mother standing at the head of the stairs saying, "Stark, how could you do this?" So fortunately, I passed the Subject A examination. Had I failed it, I think it would've been hard to face my mother.

Anyway, so getting back to the engineering or the curriculum in V-12, you were permitted to take the regular degree-granting curriculum of your chosen field with minor exceptions as I have mentioned. I should include another amusing incident here, again typical of an impetuous youth. I ignored the fact that the navy required a year of English, and I had only taken one semester. About the fifth or sixth week of my senior year, I was called into the dean's office by the dean's administrative assistant whose name was Violetta Lane, Vi Lane. Miss Lane--she was obviously referred to as Miss Lane--Miss Lane advised me and my companion Caleb McCormick that, "The two of you are not going to graduate because you are not satisfying the requirements, and you're going to get yourself into deep trouble. You'd better change your study list and get into a proper course."

So Caleb and I enrolled in a rhetoric course, I think it was, with Professor Perstein who is well known to many Berkeley students. He was a wonderful professor of rhetoric, and I succeeded in satisfying the English requirement. Ironically, Vi Lane was still in the undergraduate office of the College of Engineering when I became dean. So that I on one occasion, I think, had the courage and the graciousness to go up to her and thank her for saving me from the fate that I would've suffered had I not followed her advice.

LaBerge: Did she remember this?

Pister: Oh sure. She remembered that, yes. I can't remember how she put it. She characterized me as a "young student," but she was much wiser than I.

So we're back talking about Callaghan Hall. Let me talk a little bit more about the impact that it had. We had an extremely rigid schedule. We'd get up, I think about six in the morning, and first thing we'd have to do was run. We all lined up on Piedmont Avenue, which was blocked off during the times that we were at muster there, as we called it. We'd have calisthenics, or we'd have to run around the campanile as a mob, hundreds of

people in a formation or, no, not or but in addition, every day of the week, six days a week, we had an hour of swimming and life saving. So I learned--

LaBerge: Well, I guess for the navy that makes sense. Doesn't it?

Pister: I learned to hate to swim as a result of all that.

LaBerge: Was this at Hearst Pool or at--

Pister: No, at the men's pool, men's gym, the old Harmon gym. But we had, of course, set hours for the meals. But the first thing in the morning after calisthenics, after breakfast, we had a muster, which means everybody had to line up, and we were inspected, personnel inspection, people put on report for not having their hair cut or not shaving or having dirty uniforms or unshined shoes. If you got enough demerits, you lost your weekend basically. But all of that and lights out at ten o'clock at night. So that the structure that was imposed on me was extremely beneficial because it basically gave me constraints that I couldn't move out of. I started to study on a regular basis, and it just changed my life so that from then on I had a decent grade point average, so that ultimately I could graduate with honors rather than--

LaBerge: Slide through.

Pister: Slide through.

Social Life During Wartime

LaBerge: What about social life with lights out at ten?

Pister: Well, there was absolutely no social life during the week. We had liberty from, we had a captain's inspection every Saturday at one o'clock. You had to have your dress blues on, and during the week we had what the navy called undress blues, informal. But on Saturday, we had dress blues and a full captain's inspection. Those again were very rigorous, and if there was anything wrong with you, you got demerits and suffered the consequences. But then following captain's inspection on Saturday until muster Sunday evening, which was after dinner--I can't remember what the hour would've been--we had liberty, and we could go anywhere within a fifty-mile-radius of Callaghan Hall.

LaBerge: But that means you couldn't go home. Was Stockton more than fifty?

Pister: I couldn't go to Stockton. The exception being that at certain times, between the trimester periods when we had usually a week between periods, then you could get a special leave request. You could submit a special leave request to go beyond the fifty-mile-radius. Yes. That happened between each of the trimester periods. So I did get home from time to time. Normally to get home, I would hitchhike. During the war that was the typical way. Once in a while, I would take the Santa Fe train, which ran through Berkeley at the old Santa Fe station, which is now a restaurant, I believe. That ran through Stockton down to Bakersfield. I'd take that both ways.

On the weekends, social life for many V-12s consisted of going out and getting drunk. Or a more productive experience was to go to a sorority open house or go to one of the USO clubs--there was one in San Francisco, and down at Lake Merritt there was a really nice club for midshipmen. Typically students from the navy preflight school at St. Mary's College would come in there. They were midshipmen. We were just apprentice seamen, the lowest in the navy, but since we were college people, I guess, they felt we were sufficiently socialized or housebroken that they would let us go into this thing that was for officers-to-be. So we'd typically go there, and we could dance and meet young ladies or go to movies and stuff like that. We had very few navy-originated social events.

LaBerge: How about, were you paid for this or not?

Pister: Yes. In addition to our room and board, we received the pay of an apprentice seaman. During World War II that was twenty-one dollars a month. I put I think a third of that each month into purchase of a savings bond. There were war bonds that people bought. Later on I cashed in those bonds after the war and along with my navy pay, bought my first car. So it was a good saving plan for me. The other thing I guess that I learned in that period that was of substantial benefit was the experience of being first a platoon commander and ultimately a company commander. A company commander had three platoons of people. I can't remember how many that would've been. But the company commander had essentially the responsibility for the muster of that group at each event, like in the morning or at the captain's inspection or in the evening. Then we had the responsibility for drilling on ceremonial occasions and all where you'd have to have that bunch march around down on Edwards Field. So that's where I learned how to do all the commands and administer commands.

Engineering Society Groups

LaBerge: How were you chosen?

Pister: I'm not sure how the company officers were chosen. But I was chosen first to be a platoon leader and then to be a company commander. So it was good leadership experience. That's what I'm saying. I guess the other things I'd like to talk a little more about moving back, we'll come back to the navy again later on.

On the academic side, I was active in the American Society of Civil Engineers student chapter. That's the professional organization. I ultimately became the president of that organization. I was elected to Chi Epsilon, which is an honorary civil engineering fraternity. I was later president of the California chapter of Chi Epsilon. Then finally, I was elected to Tau Beta Pi, which is the all-engineering honor fraternity, which actually was started back in the nineteenth century as a, can't think of the proper word--as a place to honor engineers who were then not eligible for election to Phi Beta Kappa. It was a parallel organization for engineers, although later on Phi Beta Kappa did, I think, grudgingly begin to admit a few engineers because my good friend Caleb McCormick was elected to Phi Beta Kappa at Berkeley here. These engineering society groups that I belonged to were a lot of fun. We got to know people.

LaBerge: What kinds of activities did you have?

Pister: We would have social events, and we would have professional events. We would invite speakers in to talk about engineering, civil engineering in particular for Chi Epsilon and ASCE. It was just a way to build a community of people who had a common interest. My class, I would've been in Berkeley terms in the class of '46 although I graduated in '45. My class understandably was quite small because the class was almost entirely navy or Marine Corps people like I was in V-12. There were very few civilians in the class. I think when we graduated, there might have been only about a dozen or so graduated in June of '45. In civil engineering.

LaBerge: Were there women in engineering?

Pister: I think there might have been one woman in the entire College of Engineering at that period. That was a very unusual choice in those days.

LaBerge: You mentioned some place that that had a later impact, those societies, the fraternities, for the future.

Civil Engineering Curriculum in the 1940s

Pister: Oh yes. I'll come to that. That's an interesting experience. I want to say something about the civil engineering curriculum, I think, about all engineering at this point because it's an important historical issue. The engineering curriculum, and particularly civil engineering in the 1940s, was largely of the same content and scope as it had been since engineering education started in this country at West Point in the previous century. It was very much the art of engineering, untroubled by, or I should say unaffected by, the yet undiscovered importance of the science of engineering. So that the emphasis was on how to do things more than what makes things happen and how to change the course of behavior of engineering systems, particularly structures, by rational design. So there was a lot of emphasis on practice, on using handbooks, on doing things that were certainly reflective of the best practice of the time, but not entirely rationally based.

LaBerge: So when you say practice, does that mean you were out doing?

Pister: When I refer to practice, I mean the way that civil engineering was actually done in the design and construction and the operation of facilities. That's what I mean by the practice of engineering. In other words, if you want to look at a parallel, the practice of medicine may or may not be entirely scientifically rational. Engineering is very much the same way. I think all professions have that dichotomy. How much of it is art and how much of it is scientifically based. Some of my courses were really, at the time, they were perhaps good discipline for the mind but utterly irrelevant to the future.

I took a course in railroad engineering, for example, which unfortunately probably should've been maintained because our country lost its capability to design and operate railroads effectively. Whereas the Europeans did not lose that. I later had to teach that course when I first started at Berkeley. So it was a good thing I did all right in the course.

We had a course in highway engineering, which was so out-of-date that one of the problem sets talked about a horse-drawn scraper. This is the 1940s. There were just some things that were pretty much behind times. [laughter]

LaBerge: At that time how much of this did you realize? Did you know it was out-of-date?

Pister: No, the only thing, and I mentioned this briefly already, that occurred to me is, I learned all of this mathematics and physics and chemistry, yet I didn't see much connection to my junior and senior year courses. That was the troubling thing. That's changed a great deal. At some point I'd like to talk about the way in which engineering education changed from the wartime.

On the other hand, even though the course material wasn't necessarily that great--and I'm not sure the content of courses ultimately is the most important thing looking back over many years--I think it's the people that you are in contact with, the faculty that you meet, and the extent to which you can learn to think, to be analytical, to formulate problems, and then to use the best methods possible to solve them. Certainly I think problem solving, that whole emphasis in civil engineering at the time, was well done even if the problem solutions that were offered were out-of-date. The concept of design and formulation of problems was well taught.

Some of the faculty at that period I think were very influential in my subsequent experience in engineering. One of the perhaps most capable faculty members at the time was not a tenure track faculty member. He was a lecturer in civil engineering. His name was Arnie Olitt. Arnie had been a student here at Berkeley. He had transferred from UCLA because UCLA didn't have engineering at the time and got his degree and then worked on a master's degree, which I think he never finished. But Arnie was a wonderful lecturer, and he was young enough that he got along well with the students and was a great inspiration to many of us. He later left Berkeley along with two other Berkeley faculty and formed a consulting corporation, which is a worldwide corporation now.

LaBerge: Named?

Pister: It's named Woodward Clyde. Arnie, I think, never became a partner on the masthead because I don't think he ever became registered in California, for whatever reason. Well, just to mention, Woodward Clyde at one time had its offices in the Transamerica tower in San Francisco. The presidents have been Berkeley graduates and very supportive. In fact one of the presidents, Doug Moorhouse, was one of my early students.

So the faculty was good. The two really eminent ones whose names are on the campus now--Raymond Davis, after whom Davis Hall was named, was probably the most senior faculty member at the time. The younger Davis, not related, Harmer Davis was a long-time colleague and a wonderful teacher also. There were two people at that time in a field called irrigation engineering which has since moved to Davis, Bernard Etcheverry after whom Etcheverry Hall was named and Sidney Harding. Harding--

LaBerge: Whose name I know for some reason.

Pister: Sidney Harding and Bernard Etcheverry were really the fathers of California irrigation systems. They had different responsibilities in that development, but they were

worldwide, world-renowned irrigation engineers and really developed the systems for the state of California. I was fortunate to take courses from both of them, although I didn't have a lot to do with irrigation engineering. The two courses we took were useful to give one a sense of what irrigation engineering was about.

LaBerge: When did you first have your class with Popov? Was that later?

Pister: That'll come in my graduate experience. That's downstream. We'll talk about that later.

LaBerge: What was it about civil engineering that drew you to it?

Pister: Germaine, it was just a very simple coincidence, or whatever destiny, whatever it is in life. The fact that I had the summer experience after high school in civil engineering, on a civil engineering survey party, and that was enough to change me. For me it shows the accident of one's profession and one's choices in life on the one hand. Or you could say it's one's destiny. I don't know which is the correct way to look at that.

The Grannis Brothers from San Francisco

LaBerge: Anything more about the Grannis brothers and their being savvy about San Francisco or--

Pister: Oh sure. Oh right. I'm glad you raised that. The Grannis brothers lived in a four-story house on, could it be the corner of Sacramento and Buchanan? It was a wonderful old house with the round turrets on the corners. The fourth story had a big attic that they'd turned into a gymnasium, and it was just a marvelous place. I spent a number of weekends with the Grannis brothers over there. But perhaps one of the most interesting aspects of the relationship with the Grannises is that they had gone to Lowell, and they were very well connected with a certain segment of San Francisco society. They knew young ladies from--oh boy, let me try to remember the names of the two schools--

LaBerge: Hamlin--

Pister: Hamlin was one, and what was the other one, Germaine? There were two schools for young ladies, Hamlin, gosh. Maybe Katherine Burke. Miss Burke. Miss Burke and Hamlin. They knew, they had dated girls from those schools at Lowell. So they had lots of connections there.

So we had a number of really great dances or parties in San Francisco in that freshman year. One I remember was a formal dance where I borrowed one of their brother's tuxes for something I think. We had this old car, and we had to get out in our tuxes and push the car to get it started to go to this dance. We went to the home of some young lady. I think her name was Harris. But it was over in the Lombard Street area. It was a mansion--for a farm boy from Stockton to walk into a house like this! So we had some great parties. I had some great blind dates as a result of the Grannises.

I remember one especially. We went to the Mark [Hopkins Hotel], and I'm trying to think was it Henry King that used to play there, or golly, I can't even think of all the orchestras.

In those days all the hotels had super dance bands that played, and they had tea dancing, and then they had dancing in the evenings as well. So that was just a really great experience to be introduced to high society of San Francisco. In fact, I dated as a consequence of that, some girls who went on to Stanford and remembered seeing them even after I got into V-12. So that was really neat. The Grannises came up to our home in Stockton, I think, at least on one occasion and stayed the weekend. So we had a chance to show them life on the farm.

LaBerge: And did they get drafted or did they--

Pister: No my roommate Ro, I should mention, he enlisted in V-1 and got into V-12 just as I did. I forgot to say, he and I were roommates for the entire time we were in V-12 and Frank was in NROTC, also in Callaghan Hall.

LaBerge: Okay, at Callaghan Hall.

Pister: So we, and I think it might be as well to mark that period now from October '42 until June '45--that's I think thirty-two months. That's the time that it took to get my B.S. in civil, and Ro Grannis and I were together that entire time as roommates. So he was just like a brother to me, practically. We really got to know each other. Having said that, I suggest something that I ought to put on the record too is not me at my best, surely. But this was after--it must've been the summer of 1943, our student chapter of ASCE had an event up at Tilden Park, an event is a euphemism for a beer bust. Here I am a young guy from--

LaBerge: You weren't twenty-one yet.

Pister: From the farm--

Event in Tilden Park and Other Parties

[5A]

LaBerge: We were talking about Tilden Park.

Pister: This would've been the summer of '43. Anyway, my friend McCormick and I both were there. We had consumed more than our share of beer. It was a hot day out at Tilden Park so we were stripped to the waist. We started a wrestling match, and alas, fell into the poison oak. So two things, first, I don't know who was driving and who got us back to Callaghan Hall--but this was a navy installation, and I was in no shape to walk in the front door. So some of my colleagues hauled me in a back entrance up the stairs, and when my roommate Ro looked at me, he was reported to have said, "What in the world is wrong with him? He's white as a ghost." [laughter] Anyway, that was the least of my worries because both McCormick and I broke out with really bad cases of poison oak. I still remember that experience. It was so bad that at night I had my roommate tie my wrists together so I wouldn't scratch. We lived and slept in double bunks. Anyway, that was quite an experience too. We didn't do that one again.

The other thing I guess I might mention is that when I was in our senior year--this would've been in June of '45, before the graduation--I was president of Chi Epsilon. McCormick and I took the treasury of Chi Epsilon, which amounted to, maybe it would've been twenty dollars at the time, and decided we'd have one final party out at Tilden. So we used that money to purchase brew. I don't know who or what. I still wasn't twenty-one. We had a wonderful party out there, and that was the end of that. Little did I know that subsequently when my case for appointment to the Department of Civil Engineering was under consideration in 1952, the faculty advisor of Chi Epsilon remembered the incident and spoke against my appointment as a faculty member because I had spent the entire treasury of Chi Epsilon as an irresponsible student officer.

LaBerge: Who was that?

Pister: His name was Clement T. Wiskocil.

LaBerge: Oh, you didn't forget him.

Pister: No, I didn't forget Clement T. Wiskocil.

LaBerge: So how did you get appointed if he--

Pister: The point didn't prevail fortunately because by that time I had done two years of graduate work here, and I had been a lecturer and instructor.

LaBerge: And had matured.

Pister: And had matured. So there were others on the faculty that were able to dissuade him of that. So that was quite an experience.

There was one other thing I should mention. Must have been another one of my engineering student organization parties where I had gone down and bought a large metal container of ice cream from an ice cream firm on Telegraph, which has long since disappeared, Jule's. Jule's was known by everybody. It was an old style ice cream parlor with the chairs with the circular pads on the top to sit on, everything. So anyway, I had bought this ice cream. I think I put down a ten-dollar deposit on the container. This would've been June of 1945, just before I was to be separated and sent back to officers' school. It was a graduation weekend or something, and I didn't take the container back at the date that apparently the ice cream people thought I was supposed to. So they called up Callaghan Hall, called the duty officer and told him this, and the duty officer was a guy named Commander Grant Marsh. I never will forget his name. He was really a tough old guy. His immediate reaction was okay, this kid didn't take that back. We're going to send him to boot camp instead of officers' school. Can you imagine? Just without even really investigating the facts of the matter.

Fortunately there was a chief petty officer there whose name was Zeb Chaney. I remember that because Zeb was from Louisiana. You could never forget his accent. Zeb later on became an assistant basketball coach with Nibs Price here after the war. I have no idea where poor old Zeb is now. But anyway, Zeb was a more reasonable guy, and he prevailed against the commander, and I got word right away you better get your tail down and take that back, which I did, and fortunately I got out of that one. But it just shows that

sometimes you can live on the edge of the cliff without falling off. Sometimes you fall off.

Commencement, 1945

Pister: So really my Berkeley experience was finished up in June of '45. There was a commencement. The campus commencement that year took place in the Greek Theatre. I think, and I have to verify this, I think the commencement speaker was Secretary [of State George C.] Marshall of the Marshall Plan. It was a memorable event. I think my parents came down for it. Most everyone graduating was in uniform. We had a very brief period of a week or so after graduation, and then I took the train--I went down to Los Angeles and stayed with my friend McCormick in Pasadena with his family.

The next day we took the Sante Fe Chief from Los Angeles to Chicago. That was the first major train trip I ever took. Of course, at that time you had a military travel request. So your passage and your meals were all paid for by the Department of--well, it wasn't Department of Defense then, by the navy in this case. So we rode to Chicago. I think it took forty hours in those days to get to Chicago on the Chief. It was a grand experience. From Chicago, well, we had an overnight in Chicago. All I can remember from that was sleeping in the YMCA and meeting a girl somewhere--I rode out to Elgin, Illinois, on a train with her and rode back again. I was saying goodbye to her at the train depot.

Physical Conditioning.

LaBerge: Before we get into that, back to being on campus. What about sports? Were there football teams, basketball teams?

Pister: Oh yes. Sure. We had all the intercollegiate sports.

LaBerge: How much did you get into that?

Pister: I didn't get in any of the varsity sports. But I did start to play, and I can't remember when I started to play or why--but I started to play handball. There used to be four-wall handball courts, outdoor handball courts along Strawberry Creek across now from the Alumni House. They're long since gone, of course. But I started to play handball out there and got interested in it and got fairly good at it, and then I joined up with a navy colleague whose name is Ed Brunet. Ed and I won the intramurals double championship that year, which probably would've been the '45 year. But no, I was largely a spectator at sports--

LaBerge: Did you go to all the games?

Pister: Yes. We had nothing else to do, so we went to the games. My unsuccessful experience at track persuaded me there was no point of going out for track. Besides we had physical training six days a week. I played a lot of basketball and did sports in the navy program.

I should say, having mentioned sports, one of the things that the navy did at that time was to put everybody through a thing they called the strength test. The strength test was basically a series of events like push-ups, squat thrusts, sit-ups, pull-ups, different kinds of endurance and agility tests. There was some kind of a normed scale that they had that gave you a number for whatever performance you did. If your number was too low, then you had to continue in a conditioning program, which was really a tough program of muscle training. If you scored high enough, you could do elective things like basketball or different kinds of things.

Well, fortunately I passed the strength test. But those tests, when you finished those, you were absolutely exhausted because you had to do each of these things to exhaustion. People were throwing up all over the place and just being totally, the next day totally stressed out and sore all over. The only other thing that rivaled that was when we had to go through the inoculation lines in the hospital to get typhoid, tetanus, all of the other stuff. That used to be another traumatic experience for many people. Anyway that's--

Brother Phil

LaBerge: And how about your brother, what was he doing at this time? Was he in college?

Pister: I guess I should say more about--my brother is three and a half years younger, and during this period of time my brother Phil was either finishing grammar school or going into high school. He started Berkeley as a student the year I came back as a grad student in '46.

LaBerge: Oh okay. So we'll maybe get to that.

Pister: I would like to talk about my brother Phil more than I have in passing. But no, at that time he was still finding his way. I should mention that my brother Phil in high school played basketball particularly in his last year, which would've been 1945-46. The reason I just happened to remember this is he and his teammates were just honored by induction into the Stockton High School Hall of Fame for the accomplishment of being the state basketball champions in 1945-46. So it's an interesting side note that connects back. But I never had a chance to see my brother play because I was either down here or back on the East Coast. Actually in his senior year I was overseas. So I couldn't see him play.

Train to Camp Endicott, Rhode Island

LaBerge: Okay, back to, where did you go from Chicago?

Pister: Okay. So yes, picking back up from Chicago. We took the train to New York City. I still remember the name of that train. It was the Commodore Vanderbilt Limited. In those days, those trains were the way to travel. I think the night we were on the Commodore Vanderbilt, I had roast duck, in fact. It seems just amazing, and all you did was lay down a little thing that said you had a travel request, and they should feed you. I can't remember, the berthing wasn't that elegant. I don't think they had compartments, at least not in the car I was on. But so we went to New York City. I don't think we had any time in New York City at that point. Then from New York City, I took the New York-New Haven, I can't remember that whole line.

LaBerge: That sounds right.

Pister: There might have been a third, but anyway we went up to Providence, Rhode Island, and unloaded at Providence. We spent the night in the Biltmore Hotel at Providence, I still remember. I lost track now what happened, how our gear arrived miraculously. Our sea bags were just big duffel bags and were with us, and somehow we got out to the base, which is called Camp Endicott at Davisville, Rhode Island. Davisville was right on the Rhode Island coast, not too far actually from Newport. There was a naval base there, and then Camp Endicott at Davisville, Rhode Island, was the main East Coast training base for construction battalion personnel or Seabees.

Seabees were the wartime invention of the navy. There had been no such thing as Seabees prior to World War II. The navy recognized that they needed to do a lot of overseas construction to construct advanced bases, to support the amphibious corps, the amphibious landings, the subsequent occupation. So the--

LaBerge: Comparable to the Army Corps of Engineers.

Pister: Yes. They would be comparable to the Army Corps of Engineers. Exactly. Initially, they recruited officers from the construction industry typically. The enlisted corps, the equipment operators and builders and people like that, they got out of the trade unions, the building trade unions. But Endicott on that coast and Port Hueneme on this coast and Camp Parks out at Livermore was a big staging area for Seabees in World War II. Then there was one down in Louisiana, as well. Anyway, so we got to Davisville.

Ninety Day Wonders

Pister: Again, this was a period from the first of July, '45 until I was commissioned on September 8, '45, which made an indelible mark in my life really for what happened. Normally, the period was supposed to be about ninety days. That's why they called officers "ninety-day-wonders" because they went from the first stage of being a midshipman to commissioning in ninety days. Although I had spent already now two years in the navy as had all the others in that class. Anyway, we were in a special section of Davisville, and even though we were officers-to-be, we were still apprentice seamen. So we were at the bottom of the pack. The commanding officer of that school was a lieutenant who seemed like an older person, but who probably was quite a young man. He was a faculty member, professor of engineering at one of the eastern schools. I can't

remember which now. I think his name is in that article that I gave to you. You might pick that up because in the--

LaBerge: Lieutenant Hendrickson?

Pister: Karl Hendrickson.

LaBerge: Karl with a K too.

Pister: That's right. He was the commanding officer. I still remember Lieutenant Hendrickson at one of the inspections when I was standing at attention and practically falling over, he came up to me and said, "Where are you from?" I told him, "Stockton, sir." He said, "Isn't there a university there?" I said, "The College of the Pacific, sir." He said, "Who's the president?" I knew who the president was, and so I told him. It was Tully C. Knowles. So he was satisfied that I could pass the intelligence test, I guess. This is the thing now. The whole purpose of the first month at this midshipman's school when we were still apprentice seamen was to do everything possible to harass the candidates, to try to see who could handle stress and who couldn't. It was really a disagreeable experience. They would get us up in the middle of the night and make us--we slept in our underwear so we were barefooted. You'd have to run out to the drill field, stand at attention. This was summer, so it wasn't freezing cold. But it was gravelly, and then they'd make you do close order drill on the gravel, doing the facings, moving your feet, and it would just grind into your feet, just anything to make you feel bad.

I got demerits because you had to live out of your seabag, which was hung up at the corner of your bed. Your locker had to be absolutely perfect. You couldn't use your locker because you would disturb it. So it had to look like a photograph of a locker. So you never used that. If you used your towel, it got wet. You couldn't put that in your seabag or your locker. So you had to hang that on your bed. If you used your towel, it got wet, sometimes a little bit dirty. So you would get demerits for that. That meant you had to march around on Saturday afternoon when other people had liberty. In the formations, they'd try to harass you by asking you questions that you couldn't answer or you weren't standing sufficiently erect or all those things. So it was really good training to maintain your cool, learning how to maintain your cool.

I'm amused because many years later--long after that experience, I think I was already a lieutenant commander in the navy, in the reserve--I went back to the navy department. Any officer can look at his or her service record. So I pulled mine out and looked at the grades I got in midshipman's school just for the heck of it. I was mainly there to see that my record was complete so I could continue to advance. So the one thing that struck me was I had excellent grades in everything, but the thing I was graded down was on the quality, officer quality. I think I only got a 3.2 out of 4, and I was getting 3.8s and 3.9s and 4.0s on everything. So I didn't have the right qualities to be an officer, or therefore a leader.

LaBerge: There have been lots of indications here you weren't going to be a leader. [laughter]

Pister: I know. That's right. So I've often been amused at that. Of course, after the first month, most of us were then promoted to becoming midshipmen. Some were washed out and sent out to boot camp for a variety of reasons. They were judged not to be of sufficient

officer quality, I guess even though they'd graduated from college at this point. But that's understandable. So then we changed our uniforms. We moved, we went from twenty-one dollars a month to seventy-five dollars a month. We actually wore trousers and shirts and ties. Up until then we'd been wearing traditional navy blues.

LaBerge: The navy blues with the bell bottoms and the--

Atomic Bomb, August 1945

Pister: Yes. Yes. So we were then midshipmen, and you were called mister then. You were not called just by your last name. So things were beginning to look up. This would've been August, 1945. As history shows at some point during that month of August the atomic bombs were dropped. I remember hearing someone say something--we didn't see newspapers. Someone said something happened in Japan. There's a big bomb dropped. It was only the size of a baseball, and it just blew up everything. Kind of missed the scale, but anyway, so we knew something had happened, and I can't remember the evolution of that, and finally understanding it when we learned what really had happened. But--

LaBerge: What was the reaction of people at that time?

Pister: It was interesting. I think there might not have been a collective sense. It was mixed. Probably people had two emotions. One was relief, but to be honest I think a lot of people felt, "Gosh I didn't have a chance to fight in this war," because the psychology of preparation had been so skillfully and so thoroughly done that people felt, "Gee, it's over and I wasn't there."

LaBerge: I mean, a lot of young men felt that way. There was really a push to be a part of it.

Pister: Sure, absolutely. Sure. So--

LaBerge: Was there any regret about the bomb? I mean, the way you hear about it now.

Pister: No. None. Absolutely not. No. No indeed. Nobody, at least it never came to my attention. I'll mention something about that. Perhaps I should say it right now. No, I can't accurately remember my emotions at that point, but I do know about something that I did. My record, in spite of the 3.2 in officer quality, I graduated number three out of 150 in the class. So I was given an option--I could either request orders after I got commissioned that would send me to a base in the United States, or I could go overseas. If you were high enough in the class, you got that choice. If not, everybody was sent overseas. So I immediately wrote a letter requesting assignment in the United States. I never sent the letter. I let the letter go, and as a consequence I spent, not an entire year, but the better part of a year on Okinawa in the occupation.

LaBerge: Do you remember your thinking about why you never sent the letter?

Pister: Yes. I think it's partly what we were talking about. But the other side of that was, and I think my father was comfortable with this, and I might have even talked to him about this

before I finally made the decision. At that point, forties, nobody knew about jet travel and things like that. He said, "This may be your chance to see some of the rest of the world." So that was part of it. It was a new experience. So I had no idea where I would be going. Of course at that point, I just knew that it would be outside the United States. Well, ultimately we were commissioned on September the 8, 1945 as ensigns. By the way an amusing thing happened at that commissioning. I was called up and Lieutenant Hendrickson said he had a special honor to give me, and he had on a piece of string a little medal that was a medal commemorating our handball championship at Berkeley that Berkeley had sent back to Rhode Island. He hung that around my neck. [laughter]

LaBerge: That's so funny. I mean, that shows a good sense of humor.

Pister: I wish I had met him after the war in a different setting because I think he was a very decent man. Some of his subordinates were not. Anyway, so what happened, let me back track a bit. On the occasion of V-J Day, we all got, everybody at the base got liberty, and they hauled us over in a bus to the town of Jamestown--

LaBerge: Jamestown, Virginia?

Pister: No, Jamestown, must've been Rhode Island. It could be Massachusetts, but it probably is Rhode Island. I'll have to look at a map. Because Massachusetts and Rhode Island were close together in the area where--there was Fall River, Massachusetts, that some people went to, and I never got to--I think I might have been to Fall River, but I think it was Rhode Island though. Anyway, we went to Jamestown. You can imagine what the place was like that night. I mean, it was just one big mess of people who were pretty well messed up. So we roamed around drinking beer and talking, celebrating. We got back on the bus, and we got hauled back to our place again. The commissioning, the midshipman part was shortened then. I think we finished the month of September going to school to--the officer post-commissioning part of our training must've been foreshortened, and then early in October we all got orders away from Davisville to different parts. I think I was simply ordered to Commander in Chief, Pacific Forces, which was at Pearl Harbor. That's where Admiral Nimitz was headquartered. I still have all of my orders in a briefcase.

Assignment to Okinawa

[5B]

LaBerge: We were talking about your being assigned to the Pacific.

Pister: I was given orders to travel to San Francisco to receive further orders for transportation to the Commander in Chief, Pacific.

LaBerge: Do you remember the reaction or what you were doing when V-E Day happened?

Pister: Boy, that would've been June of the previous year, right?

LaBerge: I think so. [May 8, 1945]

Pister: Oh I have no recollections of that.

LaBerge: Well, maybe they didn't make a big deal out of it because the war was still going on in the Pacific.

Pister: It was still going on. Yes. I think it was probably the typical reaction. The thing that I do still have a vivid memory of, though, was the terrible explosion at Port Chicago of the munitions ships. We were in Callaghan Hall at the time, and I remember it shook the windows at Callaghan Hall even though it was clear out at Port Chicago. We didn't know what happened of course at the time. It certainly was a traumatic thing that happened. Okay, so--we're still in Davisville. I have the orders. This would've been early October, and now a new friend--who also has become a lifelong friend because we were essentially going to the same place a new friend--Larry Milnes, comes into the picture. Larry was originally from Modesto, California. He had gone to University of Texas for his V-12, and he was not in my same section at midshipman's school, but we were brought together because we both were going to Commander in Chief Pacific, and we had orders. I think we were on the same set of orders in fact.

Trip By Ship and Plane to Pearl Harbor

Pister: I can't remember how this worked out, but we took a train to Boston. That would've been down to Boston and went to Logan Airport and took what was my very first flight on any kind of an airplane. I have vivid memories of that airplane as well. We traveled on a travel request, and I still remember it cost $125 to fly from Boston to San Francisco. Well, the airplane was a little DC-3 sitting on the runway with its tail down the way those did. You climbed into the airplane. There maybe were two seats on each side, or one seat on each side. I can't remember now. It was a very small airplane though. It had a single stewardess who at that time was a registered nurse if you were a stewardess. I don't know if I mentioned this to you. My first request to the stewardess was, "Where is my parachute?" What was I then? I was twenty years old. I had never been near the inside of an airplane and I only knew about airplanes from what I saw in movies and stuff like that, and people always had parachutes on. She said, "Oh sir, we don't have parachutes. The pilots don't have parachutes. Nobody has parachutes."

Fortunately, but I didn't know at the time, the DC-3 was probably one of the most stable airplanes. It was practically a glider. You could land the thing without the engines on even. It was a wonderful plane. Anyway, that was a memorable trip because we went from Boston to San Francisco in eighteen hours. I think there must have been six or seven stops along the way. But I remember we just marveled at the fact because it had taken three days to go across the country by train and to get back in eighteen hours.

I think Larry Milnes' brother picked us up at the San Francisco airport and hauled me to Stockton to my parents. They went on to Modesto, his home. So I had, I think a week and a half or two weeks of leave before I had to report back to San Francisco. Well, perhaps the most interesting thing in that interim period would've been, I think I went back to

high school to see some of my teachers. I also went with my parents. My parents drove me up to what was then called Twin Lakes, now Caples Lake, to show me the [U.S.] Forest Service lot that they had just received a special-use permit for, with the intention of building a cabin up there after the war. So I had a chance to see the cabin site, which has become the site of our family cabin, we still use now fifty-seven years later.

I don't remember now how I got back to San Francisco. But Larry and I returned to San Francisco. We got orders assigning us to travel to Pearl Harbor by ship. It was a ship that was docked at Alameda, the naval air station, Alameda. It was an escort carrier. It was the class CVE. It was called the USS *Anzio*, after the Anzio beachhead. We were passenger officers on a four-day journey to Pearl Harbor from Oakland.

LaBerge: Was this your first time on shipboard as a navy officer?

Pister: Yes. It was the first of two times of the twenty-nine years that I spent in the navy of being on a ship, because I was a Seabee. Anyway the *Anzio* was being used as a troop transport then to move replacement people out into the Pacific and to bring home veterans who had already had enough points to get back to the United States. So it didn't have any aircraft anymore. It was very light, and so you can imagine. It was very unstable in the water. I remember we had a cabin, Larry and I, on the water line. The ship was rolling, and the waves were banging on the side. I thought we were going to sink. I didn't get sick, but it was really a rocky trip. Some people really became badly ill.

125th Naval Construction Battalion

Pister: So we got to Pearl. We stayed in Pearl Harbor. It was quite an experience to come into the harbor and to see the ships still wrecked there and to recall all of that. We were then assigned by the proper officer detailing section for Seabees in the Pacific fleet headquarters there with Admiral Nimitz. We were both assigned to go to Okinawa to the 125th Naval Construction Battalion, which was located at a village called Yonebaru on the shore of Buckner Bay. I don't know what the Okinawans now call it. But it had been called Buckner Bay after, I think it was, General Buckner who was killed on Okinawa.

So how do we get out there? We flew. We took a navy--it was called NATS, Naval Air Transport Service. This was a much better plane. This was a four-engine plane, which was like the DC-4 that was flown by the airlines for a number of years after the war. That was an interesting trip because we went from Pearl to Johnston Island which was just big enough for a landing strip. From Johnston we went to Kwajalein and from Kwajalein to Guam and from Guam to Okinawa. This was all done just with fueling stops. It was a plane carrying a lot of cargo, and there were no seats. You just crashed on the floor and slept on the floor. I remember at one point in the trip, the pilot informed us that we lost one of our engines, but don't worry about that. Kind of free and easy life.

So we got to Okinawa, and we went into the brigade headquarters, which is the unit above the battalions that they belong to. There would have been a captain in charge of the brigade, and we were assigned then to the 125th at the brigade. Our earlier orders would've just taken us to the brigade and the brigade assigned us. So we went out by

somebody's jeep, took us to our camp in Okinawa, and there we were assigned. Larry and I were assigned to different duties and different tents, and I started a period of time on Okinawa as probably the most junior officer at the camp.

At that time, many of the senior officers had been released to inactive duty by virtue of their prior service. The commanding officer was a Lieutenant Commander Richard Pinkerton by name. He should've been in *Madame Butterfly*. He was a Berkeley civil engineering graduate actually. He was regular navy, and he wanted this unit to be like a regular navy unit. Well, he was lieutenant commander. The executive officer was a lieutenant. Well, he was a lieutenant j.g. The doctor was a lieutenant j.g. We had a medical doctor. We had a dentist. All the rest of the officers were ensigns. Some of them were a little more senior than I. They had been through the same school that I'd been through in previous classes. Here was a bunch of young kids basically.

The enlisted men, the worker bees so to speak, they were in transition, too. Many of the old experienced construction men had been sent home already. We were left with a lot of young kids who had just been drafted into the navy and enough of the old guys so we could do things, but it was already becoming difficult. This was a really interesting and important period of my life because it kind of recalibrated my thinking in addition to doing some other things. I was given responsibilities for, first, the labor pool to assign people to jobs. That was a terribly boring thing. Just sat in a tent all day trying to find people and putting them out on jobs.

Ultimately, I became the camp construction and maintenance officer with all the shops under me. The plumbing, carpentry, electrical, those people all reported to me. I also was given the responsibility to build a recreation hall with a crew--a so-called Butler Building, which was a big pre-fab metal building. I have some pictures of that still. It was my first experience having forms made for the foundation and putting the concrete in and getting everything lined up and then getting the steel up. Basically, as a result of all of that, as I mentioned earlier, I think it recalibrated my life's direction by saying, this is really not what I want to do. This just doesn't look too great.

LaBerge: And when you had left school, what was your goal?

Pister: That was what I wanted to do.

LaBerge: Didn't you even once say that you would never go back to school again?

Pister: Yes. That's right. It was not only that I was not going to go back to school, but I was going to be a construction person. I found I hated that. I like to do building stuff by myself, but it wasn't fun to build projects, as far as I was concerned. So that was very much of a learning experience. But there was another really important learning experience, and I've often mentioned this in later life. I made a mistake--Commander Pinkerton was the second commanding officer. There had been, when I first got there, an earlier commanding officer who was a reservist like I was. But he had enough points so that he left. I can't remember his name.

Life Lessons from Commander Pinkerton

Pister: But anyway, Commander Pinkerton came on board, and typically when a new commanding officer comes on board, they take a lot of time to walk the walk and see what the place is about. One day he said to me, "I want you to accompany me and I want to tour the camp and learn about the camp." So we went around. He asked a thousand questions. I answered about one out of a thousand of his questions. [laughter] That made such an impression on me that subsequently when I became a dean, then became a chancellor, the first thing that I did in both cases was to go out and meet the people and learn what was going on in the organization. At Berkeley it was a little different because I had lived here so long.

But particularly Santa Cruz, when I went there as the new chancellor, I knew nothing of the campus. The fact that I spent the first couple of months with my assistant going out and meeting people where they were working and seeing what they were doing, learning the lay of the land--that made an enormous impression on the people, the staff people particularly, because no chancellor had ever done that at Santa Cruz. So I learned that from my navy experience. You better not depend on somebody else. You'd better learn yourself and be known that you're interested in what people are doing. So anyway that was an important lesson.

The rest of the time in Okinawa I did a variety of things. I was in charge of the photography shop at one time because of my interest in photography. We had an officers' basketball team, played intramural basketball with other people on the island. That was a lot of fun. I played handball again. Some officer had been a handball enthusiast, and he built a four-wall handball court on this base in the middle of nowhere. So another guy who was from USC--I can't remember his name now--he and I played handball together, and we won the Okinawa doubles. [laughter] This is just an hysterical thing that happened. As a result of that, in the spring of 1946, there was a Pacific Olympic games held in the Philippines on the island of Samar. Since we had won the Okinawa doubles championship, we were part of the Olympic team from Okinawa that went down to Samar to play handball.

Anyway, we flew down in a navy bomber of some kind. I remember there we did wear parachutes, by the way. At least we wore the harnesses ready to put the parachutes on. So we got down to Samar. Here we came, we had fur-lined jackets. We were freezing up at Okinawa, and it must've been early spring, and we got down to Samar, and they're right on the equator. It is hotter than the dickens and humid, just miserable down there. Lo and behold we found, they didn't play handball on a four-wall court. They just had a one-wall type. It's a totally different game. So we played one game and forfeited the rest and just lay around and roamed around Samar and came home. I never will forget that experience.

What else happened on Okinawa? On the weekends when we were off, liberty, we used to go swimming on the coast of Okinawa. It was fun. We made a lot of trips around the island and saw the old tombs and the caves. I remember the sadness of seeing the cliffs on one side of Okinawa where literally thousands of Japanese troops committed suicide rather than be captured. Their bodies were still there. It was really a sad thing to see.

LaBerge: How long, did you know you were just going to be there for a year?

Pister: I had no idea what. I guess the other thing, in retrospect one of the things I didn't do that might have been an interesting thing. At some point early in 1946, there was a call for Seabees who might be interested to go down to a place called Bikini Atoll and get things ready for some big new experiment. I remember considering it but thinking twice and decided, no I think I'll go home--because it looked like at that time that we'd be released some time in 1946.

Well, it turned out that indeed that was the case. I helped close the camp. At the end I was the only one in the camp that could run the water treatment plant and the electrical plant. We had two big diesel electric generators that I had to maintain and a water purification system with pumps that pumped water up to storage tanks. I was running the whole operation. I always thought about that. I don't know what happened when I left. The things were still running when I left, and somebody had to do it.

Purpose of Presence in Okinawa

LaBerge: Do you want to say briefly, what the reason was--this is for history--why were you all there? What were you doing?

Pister: Well, we were basically there in an occupation status still. There was still a military government on Okinawa, and we were working on a navy airfield at Yonebaru still. We were building some public works. But beyond that, it simply could have been the inertia in the system that you have all these thousands of people still overseas. But when I got to Okinawa or just before that year, there were 100,000 Seabees on Okinawa because Okinawa was the staging area for the invasion of Japan. All of this basically was aimed at preparing the launching pad for the invasion of Japan.

I might add that because I've seen pictures of Okinawa subsequently--I've never been back there--there was nothing standing on Okinawa. The city of Naha, which was the major city, was totally destroyed. Another interesting thing I noted there was, above our camp there was a place called Shuri. There was a castle at Shuri that was destroyed. But outside that castle, there was a destroyed Japanese tank that I remember going up to the first time. The thing that really hit me was, I looked at the tank and the tread, and there was a rubber bearing on the tread. The rubber bearing had marked on it, Goodyear Rubber, which makes me recall that we sent all kinds of war material to Japan in the thirties, steel, obviously rubber, wood, and that cycle is not over. It's a strange business, but it's not over.

In fact contact with native Okinawans was very much frowned upon, and I don't know if it was illegal, but we were kept at a distance from Okinawans. Of course they suffered terrible losses, the civilian population of Okinawa. They were living in extremely primitive circumstances as you can imagine after the war. The Japanese occupation stripped them of stuff and then the devastation of the battles just destroyed everything they had there. So they were living practically like animals. We were kept away from them and they from us.

Larry Milnes' Influence on Post War Plans

Pister: I guess I should conclude this section by--which after all was a critical point in my life, given my age and the turning point for what I would do next--by noting I hadn't really thought about what I would do after I was released from active duty. But my tentmate, Larry Milnes, from birth, I think, had his life planned out. He was absolutely clear that when he was released he was going to go to graduate school at Berkeley and get a degree in irrigation engineering (since he had come from Modesto and knew the Modesto-Turlock irrigation system from firsthand experience.) Larry decided that, so I said, "Well, I might as well go back to Berkeley, too, then, if you're going to go to Berkeley. We can live together when we go back to Berkeley."

I can't remember at the time whether at Okinawa in the spring of '46 I had any contact with Berkeley or whether I waited until I got back. I don't know. At that time everything was in such a transitory state that probably I waited until I got back. So we both decided to do that. We came back together and Larry, he's a terrific entrepreneur. [laughter] He wasn't going to get orders and just wait for the next ship. Larry went over to the airbase there, the naval air station at Yonebaru and scrounged around and made the contact to be *flown* out of Okinawa back to the states, not directly, of course, in those days but getting us started.

He managed somehow to get us orders to get on a navy plane, and we flew from Okinawa to Guam, made it that far. Well, we got to Guam. I can't think of the air station there. The city begins with an A. Anyway, we were there. We stayed there several days waiting for another plane. We finally got a plane from Guam again, Kwajalein, Johnston back to Pearl. We get back to Pearl Harbor. We got to Pearl, Larry's not going to give up still. We want to get back to the United States by air. So we ended up going up to some office where a captain, a navy captain is sitting behind an office. Here we are two young green ensigns coming up-- "So you want to fly back to the United States. What do you need to fly back for? Can't you wait for a ship?" I can't remember what we said, but he just shook his head and said, "No way. You're not getting a flight back to the United States." [laughter] So we stayed around Pearl, and it wasn't a bad deal. Oahu was nothing like it is today. We didn't go to Waikiki. Do you know Oahu at all?

LaBerge: Yes.

Pister: We went over to the other side, to Kailua. There was a beautiful estate that was a navy officers' club, and we went over there. I remember I won five dollars in a nickel slot machine, which was a fortune for me. We swam in the warm surf, had a wonderful time, ate fresh pineapple and just lived like kings waiting for a ship. We finally got a ship and got back to San Francisco some time in late May or early June of '46.

LaBerge: We're almost finished with the tape. Is that a good place to end and we'll pick it up next time?

Pister: Okay. Then we'd better end. I want to make a note, I left out something. I had two visits on Okinawa that I don't want to skip. Please make a note, one was from Ro Grannis who was an ensign on a navy supply ship that came out to visit me. We can talk about that. The second was a visit from my Uncle Paul Smith who was--

LaBerge: I think you spoke about him before.

Pister: I spoke about him, right. We both have his father's name, and he was Paul Stark, and I was Karl Stark. My grandfather was Stark Blount Smith. Anyway, my uncle was a major in the army, and he was in charge of ferrying army people back to the states from Japan. His ship came in, so I'd like to mention that visit.

LaBerge: So we will start with that, and then when you got back to the states.

Pister: We got back and then we go into this next section of reconnecting to Berkeley again. There's a lot of interesting, crazy things that happened there.

Mickie Finn; Quonset Hut Chapel

[Interview 4: January 30, 2002] ## [6A]

LaBerge: Well, when we ended last time, we were still on Okinawa. We wanted to pick up some of the things we didn't get on your Seabee experience.

Pister: Good. Well, thank you Germaine. In thinking more about the time I spent in 125th Seabees in Okinawa, I had forgotten to talk about my tentmate. I moved in unexpectedly, from his standpoint, and then moved out very abruptly following that. His name was Fred Finn, but we always called him Mick. Mick was a graduate of the V-12 program at University of New Mexico, but he had been at the University of Arizona before then and was a state champion tennis player, a terrific guy who has become a lifelong friend.

At any rate, I moved in with Mick, and being an old timer in the battalion already, he had secured two very nice cots that had actual bedsprings. Well, subsequently, I got a tent with my midshipman school colleague Larry Milnes whom I've mentioned already. I moved in with Larry and took Mickie's cot with me without asking. He didn't say anything about it at the time. But later on I found that that was a terrible breach of protocol to have taken a cot out of his tent that he had secured with some difficulty apparently.

LaBerge: Also could you just change tents when you wanted to?

Pister: Yes. Well, when things were available. These were wooden-floored tents that had canvas on top, and it depended on what tent became available. We could move in what was called Officers' Country. There was a sign there that said Officers' Country, and only officers were supposed to go there. [laughter] Segregation was rampant in those days in the Navy.

I also want to go back and speak a bit about a chapel that I was responsible for building --not building--a chapel that was a Quonset hut that had been moved in on a flat bed lowboy, we called them. I was responsible with my crew to put the chapel back in decent shape so it could be used. It was a Quonset hut whose end had been modified to build a wooden steeple on it. So it was a fairly nice-looking chapel. Well, I vowed after building

the chapel that I would never set foot in it. Primarily because I couldn't stand the chaplain in our outfit. The chaplain was a Southern Baptist.

Just to give some reason for my reluctance to attend any services with this chaplain: We used to have an officers' basketball team. We played different teams sometimes within our battalion, sometimes with others, but the chaplain was such a poor sport that he frequently got into heated arguments with the referee. It got so obnoxious that at one point our coach had to pull him out of the game because he couldn't maintain his discipline enough to be a reasonable player. So that kind of colored my view of religion beyond where I'd already reached a kind of plateau that said, "Why do I need to go to a chapel anyway?" This nailed the coffin shut for me. Ironically, that same person became a staff member at UC Berkeley advising students in professional fields. So I got to know him again in a very different capacity. I must say he matured a bit, although not completely.

LaBerge: Do you want to mention any names?

Pister: I don't think so. His name was Willis Shotwell. As a matter of fact, he and his wife and my wife and I found ourselves in what we call the Lafayette Adult Seniors' Program dancing class one--that must've been twenty years ago or more. [laughter] He seems not to have escaped my life. Then his son and my oldest daughter Therese turned out to be in the same class in the School of Education here and got their teaching credentials in the same class.

BOQ Officer: "Please Arrange"

LaBerge: Isn't that the way it happens?

Pister: Yes. I want to say something more about our commanding officer also, Commander Richard Pinkerton. Not long after he'd been on board, we learned that he had a special style of getting things done. He sent little notes to his officers and the notes would start out, PLS. arrange, Please arrange. Well, in addition to the other duties that I had, I was also what was called the BOQ officer for our battalion. The BOQ is the abbreviation for Bachelor Officers' Quarters. The BOQ officer has the responsibility for taking care of the officers' mess.

And at one point we had a little building brought in and made an officers' club out of this little building. The officers' club was complete with a bar and tables where we could sit around and play cards at night and take advantage of the bar. One of my responsibilities as the BOQ officer was to make a monthly trip to--this is hard to say--an Advanced Base Construction Depot supply warehouse where among other things there was a significant store of spirits. I had to strap on a forty-five pistol and drive up in my jeep and get our ration of spirits each month and bring them back and sell them to the club or put them in the club. I still remember, you could get a bottle of almost anything for one dollar and fifty cents. This was in 1945. So it made drinking quite easy.

Well, not surprisingly then our club attracted visitors. We were one of the few places on the island where there was an officers' club with a bar. In particular, it attracted a senior officer, senior to our commanding officer, by the name of Captain Falconer. I still remember he was Captain J.P. Falconer. Well, Captain Falconer had two particular interests it appears. First, he liked rye whiskey. So one of the first "PLS. arranges" that I got from our commanding officer was "Ensign Pister, PLS. arrange to bring some rye whiskey for Captain Falconer." So I had to--this sounds like [the movie] *Mr. Roberts*--

LaBerge: It does a little bit.

Pister: Jimmy Cagney. So I obediently acquired rye whiskey. Nobody else in the battalion drank rye whiskey except Captain Falconer on his visits. The next "PLS. arrange" that I received from my commanding officer was "PLS. arrange to bring a slot machine from the Advanced Base Construction Depot Warehouse because Captain Falconer loves to play the slot machine." So I went up, and I was amazed to find yes, there were one-armed bandits there. Here we are on an advanced base not long after the Japanese surrender. There were slot machines already in this place that I could rent or somehow get to put in our officers' club for Captain Falconer to play because virtually no one else had any interest in it. Well, Captain Falconer played it and the next "PLS. arrange" that I got was "Captain Falconer hasn't had much success. PLS. arrange for him to win more." I don't remember how I ever dealt with that, but that was an indication of "PLS. arranges" impact on a young ensign.

We got even with Captain Falconer. I'll call this the captain's dilemma caper. One night apparently our visitor Captain Falconer had more than his share to drink. So he went to sleep on a couch that was in a kind of a narrow porch-like part of this club. He was quite sound asleep there. So a group of us young ensigns--I remember there must've been twenty-five ensigns in this battalion most of whom were about twenty-one years old. We decided we'd build a wall, like the *Cask of Amontillado* [Edgar Allen Poe]. Well, we'd wall the captain in as he was sleeping. So we took all the chairs in the mess hall and built essentially a wall of chairs and walled the captain in while he was sleeping there. Then we all went to bed. The next morning, lo and behold, the captain was not there, and the chairs were still the way we left them. We, to this day, can never figure out how Captain Falconer got out from behind those chairs. [laughter]

LaBerge: That's a good picture of life in the navy!

Two Important Visits

Pister: That's right. Just to be clear in the record, the war was over. There were Japanese on the island, but they were all prisoners of war at that time. So we weren't essentially derelict in our duties. But it does show the stranger than fiction things that do happen.

I'd also then just like to conclude this section by mentioning two visits, actually three visits, that I had during the time that I was on Okinawa. Two were happy, and one was more difficult. Let me deal with the difficult one first. When I was a freshman here at Berkeley, in my class were twin brothers by the name of Robert and Jim Lyness. They

were both engineers. They were both very tall fellows, and they enlisted about the same time I did.

Bob enlisted in the V-12. His brother Jim also wanted to enlist in the navy program, but it turned out he was a half an inch taller than his brother, and he was too tall to be accepted by the navy. At that time there was a height limit. So Jim Lyness was drafted into the army, whereas his brother Bob was in my class and graduated with me. Well, while we were still here in the spring of 1945, which is when the Battle of Okinawa took place, Bob Lyness and I were still finishing our last semester at Berkeley, trimester actually at Berkeley, when we got news. Bob got news in April or May of '45 that his brother had been killed on Okinawa by a sniper.

Bob ended up out on the island of Oahu while I was on Okinawa. He knew I was there. He somehow got word to me that he wanted to come out to visit his brother's grave. So he came out to visit me. I remember the very emotional experience of taking Bob to the cemetery where his brother had been buried.

So that was a sad reunion with a friend, whereas my roommate Ro Grannis who was on a navy transport ship came into Buckner Bay on Okinawa during the spring of 1946, came ashore, and we had a nice visit. I went back out to the ship and visited him on the ship. We had amphibious vessels. They were called ducks in World War Two, and these vessels had rubber tires. You could drive on land. So they could go right on out in the water, and they had a screw in the back, chug on out to the ship. So I had a chance to go out and visit him.

Then on another occasion my Uncle Paul Stark Smith, my mother's brother who was a major in the army transportation corps, paid me a visit. He was on a troop ship. His responsibility was moving troops from the Far East back to San Francisco. He paid us a visit and had dinner with us in the officers' mess and it was wonderful to see him since I knew he had been called back into the service. He was an army reservist form World War One actually. We had a nice time, a nice reunion in the spring of 1946.

LaBerge: Could I go back and just ask you some follow-up questions?

Pister: Yes.

LaBerge: His name was Paul Stark Smith, and you mentioned that your mother called you Stark. When did you start being called Karl?

Pister: Oh okay, I'm glad that you asked that question, Germaine. I went by my middle name up until the time I came to Berkeley.

LaBerge: Wow. As a freshman.

Pister: As a freshman. At Berkeley, writing down forms and all, your first name, middle initial and last name, suddenly I became Karl. From the day I got to Berkeley, except my roommates who called me by my middle name, everybody else at Berkeley and subsequently called me Karl. So I just went along with it and decided that I would be Karl.

LaBerge: Your wife calls you Karl. That's how she met you.

Pister: Yes, but she knew me as Karl from the beginning. Yes. I think that probably finishes--

LaBerge: The Okinawa experience.

Homecoming, 1946: Family Cabin and Backpacking Trip

LaBerge: We talked about how you got home.

Pister: Yes. I think we went over that already. Yes.

LaBerge: Thinking you might get a plane home and you got a plane as far as Hawaii.

Pister: Then we took the ship from Hawaii back here.

LaBerge: What was that like, the homecoming?

Pister: You know, that's kind of lost now in my memory. Certainly my parents were tremendously relieved to see me back. I went back to Stockton to our homeplace, and that summer of 1946 was an eventful one in the sense that I was living at home again with my brother and my mother and father. It was that summer when we started in earnest to think about building our mountain cabin on the site at what was then called Twin Lakes on Highway 88, now Caples Lake just below Carson Pass. So we actually started construction, I believe, that summer.

The other important thing that summer was that my brother and I and our high school friend Jack Burns--whom I had gone to high school with and worked with in the summer of 1942 and who was also in the navy V-12 program--we made our first pack trip on the John Muir trail. We went in from the east side over Mono Pass into a beautiful area called the Recesses. That was my first experience with backpacking. Just a word there. When I think about what's available now for backpackers compared to what we had at that time--we had old ski mountaineering packs that were slung way too low because they were designed for skiers. We bought these packs at army surplus stores, and we bought sleeping bags, down bags and all--

LaBerge: That probably weighed a lot.

Pister: Well, they weighed more than they do now. Of course, there was at that point no market yet created for foods for backpackers. So we didn't carry any tin can stuff, but the range of things available to eat was fairly limited. We had fairly Spartan food. So that was the first of four summers that we backpacked in the Sierra. We can come back and talk about that later. But '46 was a milestone year.

III. GRADUATE STUDENT AND INSTRUCTOR, 1946-1949

Reintroduction to UCB, College of Engineering

Pister: Probably the next thing then would be to talk about reintroduction to Berkeley, which took place, would've been in the fall of 1946. I can't remember exactly whether that was September or October, whether we were back on the new Berkeley calendar. The trimester system stopped in '46, and we started back on the semester system. Well, that's not important. I think it's important to mention here that in '46 my brother came to Berkeley as a freshman. So the two of us came down, and he was fortunate to be accepted to live in Bowles Hall. He met a wonderful group of people there that he's still in touch with even today, among them Roger Samuelsen who was the student body president at Berkeley during his undergraduate time and later became a member of the [UC] president's staff. In fact, he's been instrumental in the UC Merced acquisition.

At any rate, Phil [Pister] came down, and before we came in the fall of '46, I was able to go out to the, I think it was an army facility at Port of Stockton--I can't remember now what it was--and buy a surplus army jeep. That army jeep turned out to be a very important tool for us in the subsequent years. They made jeeps available to veterans. I think it cost four or five hundred dollars at the time, but it was a wonderful little car. So we used that for commuting back and forth, and my father used it on our farm to do all sorts of chores. It became a mainstay because one must remember, in '46, Detroit was still not up to production, and even if it was, there was such a backlog that it was very difficult to get a new car. To be able to get a jeep was a very important step for us.

LaBerge: Where did you live?

Pister: Okay, so we came back, and in '46 along with my friend Larry Milnes we located a room, a beautiful room in a private home on Rose Street. I don't remember. It was on Rose above or east of Scenic. It was a lovely old Berkeley home. The lady that owned the home was divorced. She had a young daughter, high school-aged daughter. So in order to make money, I guess, to support herself and her daughter, she worked, and she took in, I guess, three or four boarders, not boarders but roomers, people that just lived there. There was no food. She gave up the master bedroom. So Larry and I had the master bedroom of this place, which had a beautiful view out over the bay, had a fireplace in it and nice

bathroom. So we were in great shape. So that's where we started on Rose. We walked to the campus from there and thought nothing of that in those days.

The other thing I remember about living on Rose Street was that because of the eating situation, in the morning we went down to what was then a drug store at the corner of Euclid and is it Ridge Road? There was a drug store there, with a typical drug store counter with the stools. They served doughnuts and coffee. So for one whole year, every morning during the week, I had two glazed doughnuts and a cup of coffee for breakfast. Not a great way to start the day, but I think it cost about twenty cents at that point. Then we'd go down to campus.

TA for Professors Einstein and Popov

Pister: I enrolled in a graduate program for a master's degree in civil engineering. Well, quite unexpectedly, I think early in, must've been right at the beginning of the semester, I happened to walk into the office of the department chairman. He was a gentleman named Bruce Jameyson who had taught me two courses I think as an undergraduate. He looked at me and he said, "Oh, I remember you. Didn't you have a B average?" I said, "Yes. Professor Jameyson, I did have a B average." He said, "How would you like to be a teaching assistant?" In 1946, there wasn't a great supply of teaching assistants. So I said, "What's that?" So I became a teaching assistant, and I think my salary for the academic year was $900 to be a TA.

LaBerge: Were you on the G.I. Bill?

Pister: Yes, I was on the G.I. Bill. Sure. I became a TA, and interestingly enough I was a TA for Hans Einstein who had just joined the Berkeley faculty. Hans Einstein was the son of Albert Einstein, wonderful gentleman. I helped him in the hydraulics laboratory, which is now replaced by the Bechtel Center. It was the old hydrocourt, the Mechanics Building, from a century plus ago. I also was assigned to work with Professor Egor Popov who probably more than anyone at Berkeley influenced my own career. So I taught and helped them with courses and was also involved in helping with the surveying laboratories, which I already had a lot of experience in. So I had no difficulty there.

LaBerge: But did they train you?

Pister: In those days there was absolutely no such thing. If you were named a TA, it was assumed that you knew what to do. So we just--

LaBerge: Just followed orders.

Pister: Just followed orders and did--in the surveying lab it was pretty easy because I knew how to do surveying, and I just worked with the students. If they didn't know how to set up the instrument or know how to do a particular measurement, I showed them how to do it. The hydraulics lab was a little more problematic for me because I think in all the time I was at Berkeley, I think I already mentioned, I got a C in mathematics 3A, and I got a C in the laboratory course in hydraulics. All the rest were Bs and As. So here I was a TA in a

course for which I received a C, from the faculty member incidentally that I did my master's degree work with, who became a colleague later on in life, Professor Joe W. Johnson. It was a deserved C, however.

So I started, that first year was an interesting experience getting reinserted back into academic work again, after being away just for a year. I took a course from Joe [W.] Johnson who was a professor in mechanical engineering at the time. His field was fluid mechanics, and as a consequence of that, I think I was attracted to work with Joe for my master's degree. It was a course called River and Harbor Hydraulics. It was interesting in the sense that the dean at the time, Mike [Morrough P.] O'Brien, was very interested in that field, was an expert, worked a great deal for the army on beach erosion problems. So he often came into the class, and on more than one occasion, both of them would be at the board writing at the same time, teaching the class. The other interesting thing about that 1946 period was that there was a whole group of active duty army engineer officers going back to get their master's degrees in civil engineering. So I had the opportunity to meet a number of older men who probably would've--

Older Students on the G.I. Bill

[6B]

Pister: The army had a program of sending a select number of career officers back for graduate work at different universities across the United States. So this group was a very interesting group. I became very close to one officer in particular. His name was Charlie Schweitzer. He was a lieutenant colonel at the time, and he and his family visited our home in Stockton and kept in touch for many, many years subsequent to that.

The other thing, I guess, I should mention: as I said in '46-'47 was a reintroduction into graduate work. I took a class from Bob Horonjeff who at the time was the chief civil engineer of the U.S. engineer district in San Francisco. Bob had gained a lot of experience during the war on airfield construction. So he was brought in as a lecturer to teach a course in airport design. It was a very interesting class. I got to know Bob. He ultimately left the corps and became a full-time faculty member in civil engineering at Berkeley and became a professor of civil engineering. I worked with him as a colleague, as well as being involved with him at an intermediate period of time that we'll come to.

I think the only other thing I would say, I guess, in that period, that year '46, '47, the year when really substantial numbers of veterans were coming back to the campus, I remember eating dinner in cafeterias that were set up in the south side of the campus in old barracks buildings. They were basically military kinds of chow lines, to use that term, and there were so many people here in Berkeley with no place to eat really. Then the cafeteria was moved into, I think, Stephens Hall at one point. There was a cafeteria set up in Stephens. The campus was very much alive, but it was all business in those days because the students were by and large people that had their education interrupted and were coming back to complete their collegiate education.

LaBerge: Did Callaghan Hall revert to becoming International House?

Pister: It did, and that happened some time in 1946. I don't remember--the V-12 program was terminated, I think, in July of '46. So that would have been the time when the transition back to I-House would've been made.

LaBerge: And how many women on campus?

Pister: Well, I don't remember. Certainly up until 1946, the campus was predominantly women. After that I think the balance shifted back. Probably there were more men than women for a substantial period of time, but I don't remember the details of that.

LaBerge: Were there any reentry problems, the way you had this transition when you were a freshman?

Pister: At that point, I guess the biggest change was--this may sound a bit crude. But life in the navy was structured so that when you had the opportunity to leave the structure, you kind of went off the deep end. It was kind of a compensatory time you needed, to deal with the structure. Well, coming back onto the campus, there was no structure, nothing like the navy to keep you busy. So you really didn't need the opportunity to kind of let it all blow out, for lack of a better way to express this. At least speaking for myself and my roommate and folks we lived with, we learned that we had to be a little more disciplined in the off hours. We gave up going to bars and stuff like that because it was expensive, and it was not necessary anymore. We didn't need that kind of relief.

LaBerge: What was the social life?

Pister: I'd like to come to that in this next period, the 1947-'48 year. Okay.

LaBerge: So we are finished though with '46.

Pister: I think that's probably as much as I can say about '46.

From TA to Lecturer at Age 22

LaBerge: Do you want to talk about Egor Popov now or--

Pister: I think I'll postpone talking about Egor. He comes back into my life many times, but this initial interaction was simply meeting him. That was his first year at Berkeley, 1946, as a young assistant professor with a family already. He had just finished his Ph.D. at Stanford under a very renowned Russian émigré, Stephen Timoshenko. It was just my good fortune by the accident of assignment that I became his TA and started a friendship which lasted up to his death this last year, a mentorship really for many of those years. I think the most important thing then is to move to the summer of 1947. At the end of the 1946 academic year much to my surprise, the department chairman called me and my roommate Larry in to announce that well, you've done a good job as teaching assistants. How'd you like to be a full-time lecturer in the academic year 1947?

LaBerge: Meanwhile had you done any lecturing or just helping?

Pister: Just incidental. So that was quite a shock. It kind of shows the desperation of the administration at that point to--. I was all of twenty-two years old at the time and still working on my master's degree, and the only academic experience I'd had was to graduate with a B.S. and to be a teaching assistant for one year. So in the fall of 1947, I was to start as a lecturer in civil engineering. I had some idea from the chairman of what I would be teaching in the fall. So that summer was a worrisome experience because I got the books I was going to be using for teaching and started to read through them. They were books that I had studied from as an undergraduate, but it's quite a different matter to be teaching and not just learning. The teaching turns out to be as much learning as it is teaching. So that summer was complicated by that fact. I might mention that my starting salary for that nine-month appointment was $3600 per annum, which I should note was more than my father made during his entire teaching career as a high school teacher.

LaBerge: Wow. Well, your parents were probably flabbergasted.

Pister: Yes. That year we really started in earnest to build our mountain cabin. And to connect to what I just said, I remember my father ordered lumber for the cabin. I think it was $400 worth of lumber for the structure of the cabin. I loaned him the money from my great salary of $3600 a year so my high school teacher dad could buy the lumber.

LaBerge: Wow. Before that, did you have any thought of teaching?

Pister: No.

LaBerge: Never.

Pister: None whatsoever. Only it might have been genetically implanted in me because of my parents certainly, but I'd never thought about teaching.

LaBerge: Isn't that funny how someone can just kind of plant that seed?

Pister: It was the accident of walking into the department chairman's office. Then really to enjoy it and do a sufficiently good job that it was noticed, or at least there was no notice that it was so badly done that--that's more like how teaching is considered in the university, isn't it? That I was recommended to be a lecturer. So I taught that first semester in fall of '47.

LaBerge: What was the class?

Pister: That deserves further amplification. The full-time teaching load at that time was three lecture courses. These are semester lecture courses, and I think, I had three laboratory courses as well.

LaBerge: Plus doing your own work for the semester.

Pister: Plus doing--I had finished, pretty much finished doing the coursework already, but I had to do my thesis. I was doing twenty units, I think, at that time it was twenty units plus a thesis. So I'd started the thesis with Professor Joe Johnson, and it was a real struggle. The interesting thing was that the students in my classes on average probably were older than I, because most of them had not had the great good fortune that I had to be able to

complete a degree during the war before serving away from the campus. So they were in that sense more mature. They were very eager to learn, and of course, I was learning the subject and trying to stay a page ahead of them in the book.

I taught surveying and strength and materials and route surveying, which was a kind of railroad engineering course. I taught materials laboratory and the surveying laboratories that went with the lecture courses. So it was really a struggle in those early years--the great fear of that period was to run out of material before the end of the hour. One might not be sufficiently far ahead of the class, and you'd run out of something to say. Alas, over the years that certainly turns around because you have a great deal more to say than the time allows, and often you don't finish subjects that you should have finished, but in those days that was a real issue. The support though that we received, particularly in the one course, the strength and materials course, which turned out to be something that I really ultimately followed up and did a lot more work with, was really made possible by Professor Popov.

It was a joy to be involved in that work because Egor Popov was the leader in that area, and the young faculty members met with him regularly. We had multiple sections of courses, and once either in '47 or '48, I can't remember which year, I had seventy-two students in that class of strength and materials. Somehow at that period of my life I was able to remember the names of all the students, and I graded all of the exams myself. I didn't grade the homework, but I graded the exams including the final. So I really got to know people. It was a wonderful experience--I really owe a great deal to Popov for the formation that I got in that early period, the first two years of my teaching experience because he was such a wonderful inspiration--he knew the subject so well and how to teach it. It was a wonderful help.

We were all together, there in the old engineering materials laboratory, which is now Davis Hall. The front of it was torn down, and Davis Hall was put up. We were on the third floor in a huge room. There must've been eight faculty members in that room at the time because of the space crunch. So we clearly had a lot of opportunities to talk about the subject, as well as many other things.

LaBerge: Was Larry also teaching civil engineering?

Pister: Larry also was a lecturer. He was teaching the same thing. He was taking different courses than I, since he was interested in irrigation. So he and I were together. I should mention that in 1947, we moved out of the Rose Street house, and we were now joined by the person that I mentioned from Okinawa, Mickie Finn, who came back. He had worked for a year for the Southern California Edison Company as a field engineer up in the Sierra Nevada Mountains doing the preliminary work for what is now called the Vermillion Dam. Mick came back, and the three of us some time during that year moved; we spent part of the year at Rose Street because Mick lived with us there first.

But then we moved into what I can euphemistically call an apartment on Arch Street. It was 1440 Arch. What it was was an ancient shingle-covered three-car carriage house, I believe. A garage would've been already a misnomer because it was built earlier than that. This old carriage house garage was turned into an apartment. It had a bedroom on one end. One of the garage parts was a bedroom, which consisted of two double-deck wooden bunks that were procured in navy surplus, I imagine. The middle part was a

kitchen, and it had a Pullman kitchen put in it, and the other garage part was a kind of a living room. So we lived there for a year on Arch, and we did our own cooking, which was a relief after living off the glazed doughnuts and coffee. We could make our lunches and take our lunches and make our own dinners. We used to alternate; each one of us would cook dinner. We had a cyclic arrangement set up. So that was an interesting change in our living experience to have that place on Arch Street. We stayed there for a year, and I'll talk about the other ones.

Courtship of Rita Olsen, 1947

Pister: But there's no question that the most important thing that happened in 1947 was the occasion of my meeting Rita who has been my wife of fifty-one years. One of the things about living as we were and being engineers on the north side of the campus is that at that period of history there were no women in engineering, and we seldom saw any females, period. They lived in a different world in a different part of the campus. So our social life was pretty dismal. So I can't remember exactly about that. For some reason one night, we decided we've got to find some social life. It turned out there was a Friday night dance. It was a stag dance at the Hearst Gym, canned music of some kind. Larry and I decided that we would go to this dance. Probably cost twenty-five cents to go. So we walked in the front door, and there were three young women standing just inside the door, and I walked up to one of them and asked her if she'd like to dance.

LaBerge: And that was Rita?

Pister: That was Rita. So I danced with her the entire evening, and she came with a girlfriend whose name was Janet Peters. Janet was a student at Berkeley, and she'd invited Rita to come to the dance with her because Rita at that time was attending Holy Names College in Oakland. Holy Names at that time was down on Lake Merritt where the Kaiser Center is now. This was March 1947, just before the Ides of March, I might add, because that's Janet's birthday, and Janet's been a lifelong friend of ours. Well, I called Rita for--I don't know how I got her address or her phone number, but I somehow did. So I called her asking her for a date, and she was busy that night. I called her again, and she was busy.

LaBerge: Were you getting a message? [laughter]

Pister: I remember calling the third time and calling was difficult as we were living up on Rose Street. This was the spring of '47. We hadn't moved into our Arch Street place yet. That was later in the year obviously because I still remember having to go downstairs in the family room of the house when the mother and the daughter were there. They were always there. I had to use the phone--

LaBerge: In front of them.

Pister: With them listening in on everything that was going on. It used to be really awkward, but I finally managed to get through to Rita, and she agreed to go out with me.

LaBerge: Her last name was?

Pister: Olsen. Her name is Norwegian. She lived at 828 Mariposa Avenue in Oakland. The house is still there, it's just off Oakland Avenue. Now it's surrounded by big apartment buildings, but this single residence is still there. At any rate, we were supposed to go to a dance in San Francisco. I can't remember what it was. We were going to double date with my friend Caleb McCormick, Mac, who married the commander's daughter.

Well, I think the day of the dance her father called me and said she was ill, and she couldn't go. I learned subsequently that poor Rita didn't know my number, and she didn't know how to get in touch with me. She was really ill. It was not a phony thing. So her poor father had to come up to the campus, and in those days there used to be a student index file in Sproul Hall. You could go in there, and there was a card file, and you could go through, and every student had a name and an address and a phone if you had a phone. He got the phone number and called me up and told me that she was ill. I had already bought a corsage. So it must've been a reasonably formal dance. So my friend Mac, to his credit, took the corsage by and dropped it off on the way to the dance, which was very nice of him.

LaBerge: It was.

Pister: Yes. So that made some impression I guess on her because subsequently I did finally get a date with her. I can't remember what the first date was. At any rate, that began a very long and important courtship that basically was conducted at the Garden Court of the Claremont Hotel. I'll have to make an interjection here because that was such a deal that we had. One of our roommates in the Rose Street house where we lived was a fellow named Pete Mayer. Pete was really a wild guy. He had been a paratrooper in World War Two, made I don't know how many jumps. Had jumped into Italy. He lived on the edge of life all the time. At any rate he befriended another guy, a Berkeley guy, who was the, what do you call him, the ticket-taker at the Garden Court of the Claremont Hotel.

The Garden Court in those days was a wonderful place that had real live music, Dick Jergens, Russ Morgan, big name bands that came and played. They broadcast. You used to listen to it on the radio. They'd come on "High atop the Oakland Berkeley Hills, we bring you the music of Russ Morgan." They had wonderful music. So it was basically cocktail dancing. You'd go in, and I don't know if you could buy food. You could certainly buy drinks and dance. Had a wonderful dance floor. So Pete knew the guy at the door. Pete basically gave him a list of visual i.d.s. So we used to go up, and just say hi, and we'd walk in. The hostess must've known what was going on, but we got in. This guy quit. So Pete got the job. When Pete was there, there was no problem. Pete passed the job to the next guy. The list was transferred. So for approximately three years, two years I guess, we were able to go dancing at the Claremont on the house. We normally would have one drink while we were there perhaps. So Rita and I went dancing there almost, I don't know, every other weekend for a couple of years. Then I went to her college dances with her.

She graduated from Holy Names in June of '47. I went to that graduation. I still remember taking her in her cap and gown and her friend Janet in my jeep from the commencement. I remember well that commencement because I can't remember where it was held, but the archbishop of San Francisco, Archbishop Mitty at the time, was the celebrant of the ceremony, whatever it was. Each of these young women had to go up to

get their diploma and walk over in the front of the bishop and genuflect and move on, kiss his ring. At the time I was a Presbyterian, well, not formally, but I was attending a Presbyterian church. I just felt this was pretty far out.

So anyway Rita and I dated regularly from that March '47 period. In the fall of '47 after she graduated, Rita applied to and was accepted to the teacher credentialing program at Berkeley. She became a grad student here in '47-'48 to get her credential. So she'd be on the campus, and we had frequent meetings on the campus during that period. I still have a vivid memory of meeting her once on the lawn between Life Sciences Building and the Ag Building, Gianinni Hall, I guess, over there. There is still a beautiful lawn there beneath the deodar cedar trees, sitting there with her when she was on a break from her classes.

LaBerge: So did she move to campus too?

Pister: No. She lived at home all that time.

LaBerge: The home was Mariposa Street.

Pister: Yes. In those days one got around the city on the old street cars, the electric lines still running. Of course, one went to San Francisco on the Key System trains across the bridge, which were wonderful--a tragedy that we had to get rid of them.

[7A]

LaBerge: She was a graduate student here. And that's the first year when you were the lecturer too.

Pister: Yes.

LaBerge: You were really busy.

Pister: She actually met me, as I said, in March '47. So I was still a teaching assistant in March '47. Yes. I still remember an early date. It would've been in the spring of '47 before I became a lecturer. We now were at a Friday night dance in the Harmon Gym and having a big argument with her over what was the more powerful motivating force in the world. Was it love or fear?

LaBerge: You're probably still carrying out the discussion!

Struggles with Religious Faith

Pister: The other interesting thing, at that time and I'd like to say more about this in a moment, I was attending the First Presbyterian Church in Berkeley.

LaBerge: Oh, you were? So you had changed from when you didn't want anything to do with religion.

Pister: I want to come back and talk about that, but at any rate, we had big arguments over drinking. Here I had been in the navy and done more than my share of drinking from that experience. Rita had, I think, never had a drop of alcohol in her life. In those days in the Roman Church you didn't take communion in both forms. So she hadn't tasted anything. I was saying, there's just too much drinking. It's not right. She was saying, "What do you mean? It's perfectly okay." We were on opposite sides of that issue. It was really amusing. We had some real arguments over that in our first year.

I want to go back and say something now about my struggles with faith. As I said early on in our conversations, certainly my mother brought me up with a strong Christian faith. I talked about going to Sunday school. I remember even as a little boy, hot summers in Stockton in our parlor, not the living room, the parlor, which was a distinct room in an old Victorian house, lying there trying to keep cool when she would read to us from the Bible or bible stories about characters. When I came to Cal as an undergraduate, I pretty much, or by high school really, I substituted the YMCA for my religion, for any formal religious affiliation, which I think was fine for the time. When I came here to Berkeley, I pretty much gave it up completely. In the navy, as I said, I was turned off completely by the chaplain, and that was my rationalization for it.

But when we got here, I can't remember what year, whether it would've been '46 or '47, must've been the end of '46 again. Again Larry who is always a step ahead of me on things, going back to graduate school or figuring out how to get home on an airplane instead of a ship. He said, "We've got to start going to church because maybe we'll meet some young women there." Or girls, as we would've said in those days. "Okay, Larry, where do you want to go?" Larry, it turned out was a Presbyterian, I guess. So we went to St. John's, which was on Dana and something--I can't remember now--Presbyterian church, and it was my good fortune to do that because I met then and heard one of the, I think, most persuasive and beloved Presbyterian pastors in the country, Robert Boyd Munger. Bob Munger who only died a year or two ago was tremendously inspirational, and he really woke up the dying embers of faith in me as a person and really got me thinking again about life, and he was just a tremendous example and inspirational homilist.

So I started attending regularly with my roommate Larry, as did Mickie Finn. I still remember, Mickie always carried a Bible, never opened it. But he always carried it to church, always carried it back with him. He never opened it. I never could figure that one out. But anyway, we went to evening services typically. They sometimes had a social afterwards. Never met any girls there, but I think in the long run it probably was just as well.

At the same time because these things connect, I joined the naval reserve on an active status. I started to, once a week, spend three hours in the evening down somewhere on the Oakland waterfront with a naval reserve construction battalion. To connect back with my navy experience and turns out to lay the foundation for ultimately a 29-year-career in the navy and naval reserve, which I'm very grateful for, and I want to talk about later on in these conversations.

But anyway, why does that connect to Bob Munger? As a naval reservist we got drill pay. We got a day's pay for the time we put in. But Bob Munger had made such an impression

on me that I gave that navy pay to his church on a regular basis. That kind of connects to the importance that I placed on his influence on me.

LaBerge: Did you have a personal relationship besides just the--?

Pister: No. I met him once or something, but no personal. It was just his presence. He was a marvelous person. So, coming back to talk about Rita and because this connects back to her. Rita was a cradle Catholic. She attended Catholic elementary schools, Catholic high schools, College of the Holy Names. So she met this Protestant guy, naturally that raised eyebrows with her mother who was an Irish Catholic. Her father was a Norwegian and not concerned about such matters, but certainly her mother was concerned that she was dating a Protestant.

LaBerge: I know that.

Pister: You know that one. Okay. Yes. But more than that, it was interesting because she had very little understanding of what it was like to be a Protestant, and I had no understanding of what it was like to be a Catholic. I don't think I mentioned this earlier. But one of the very few pieces of advice my father ever gave me was given subsequent to attending a Catholic wedding in Stockton, one of our neighbor's. After we came back and were eating dinner that evening, he said, "Stark, don't you ever marry a Catholic." Still remember that conversation in our dining room. Poor dad. So Rita and I used to have some pretty intense discussions about religion. I think often pretty well a reflection, pretty much a reflection of lack of really basic understanding of different positions, religions. So let me see, where does that take us now?

LaBerge: Are we going to go on with this, with the faith and how that evolved?

Pister: That really didn't go anywhere until I got to University of Illinois.

LaBerge: So this discussion can keep on.

Pister: Yes. We'll have to keep on. The only other thing I guess I would mention at this point is that I went with Rita on--there are a couple of really strange incidents. I went with her once to Notre Dame Academy, I think it was called, in Alameda where she went to high school for a brief period of time. Although she finished her high school in Grass Valley at the Mercy High School in Grass Valley, she did her first years here at Notre Dame Academy in Alameda. The Academy was staffed by Sisters of Notre Dame. They're a wonderful group of nuns that I got to know later on. But the very first time I went with Rita to any kind of a service or whatever was to go to the nuns' chapel or the Sisters' chapel to witness the ceremony associated with exposition of the Blessed Sacrament, benediction. For a person that had never come close to that kind of liturgy before, I thought it was quite bizarre. Of course, everything was sung in Latin at that time, which was fine because I love Latin, not that I could understand it.

LaBerge: Incense.

Pister: The incense, I don't know, the whole structure was very strange to me. The other crazy incident in that period was a similar visit to the chapel at St. Mary's College, the church really, not hardly a chapel, which I had never been in. I can't remember what exactly now

except that there were some students that apparently had food with them; they were kneeling in front of one of the side statues. I had gotten the impression that they were leaving the food there as some sort of an offering. I came out. I talked to Rita and I said, "What's this all about?" "Oh they were just going there to say a prayer to that particular saint." "But why were they leaving the food there?" Some kind of a strange pagan ritual. But she advised me, no, that that was not what they were trying to do there. So I got that straight. Anyway, apart from the discussions we had about right and wrong and good and bad behavior, that's about the only interaction we had. I didn't go to church with her, nor did she go with me at that period of history. Let's see, that's '47. That would take us to the summer of '48.

Working on Master's Thesis at College Avenue Pool

LaBerge: When did you start working on your thesis at the College Avenue Pool?

Pister: Now I'm working on my thesis at the College Avenue Pool. That would've been starting in the '47-'48 academic year. The College Avenue Pool was the old swimming pool at the university.

LaBerge: Where on College was it?

Pister: It was located essentially where Wurster Hall is now. College Avenue ran through in those days. But it was pre-empted; there was a big swimming pool there. That's why it was called the College Avenue Pool. There were buildings that had been used, I guess, for changing rooms and all. It was converted into a research facility. In fact, the pool itself--there's an interesting connection--was used by Mike O'Brien, the dean at the time of engineering, and Joe Johnson my advisor and some other faculty to do experiments that were trying to simulate the wave that would be created when the Bikini bomb was exploded in 1946.

They had a thing where they dropped a big plate of steel on the water, and they measured the waves that came out from that, trying to model what might have happened. I have no idea whether it was useful for anything, but that's what that was about. Then in addition there was a group that was working on what was called the low-pressure aerodynamics research. This was a research project started in the mid-forties, and it was precursor research that ultimately was needed to do the space flights that took place much later, the space capsules, and first the manned rocket flight things and finally the satellite thing. There was no real solid scientific and engineering basis for understanding the drag and the forces that you'd encounter when you flew in outer space. Quite a few of my engineering colleagues were involved in that including George Maslach and Sam Schaaf. Those are the two that I remember. They were working over in the pool area next to my little experiment, which was just a metal cylinder packed full of sand, and I was running water through it. It looked at trying to understand better the mechanism that produces quicksand. So I started it over there and then I moved back to the hydrocourt on campus and had a much better cylinder built, and I could see the sand in. So I finished my thesis work in the hydrocourt over on the campus.

LaBerge: Where was the hydrocourt?

Pister: That's where the Bechtel Center is now, I mentioned that before. It was called the Mechanics Building and it was torn down to build the Bechtel Center.

LaBerge: So when you do that, do you build your own cylinder?

Graduation, 1948

Pister: No, it was built for me. I had to operate it. But no, there were technicians that did the plumbing for me, so to speak. So that '47-'48 year was a busy one in that I was finishing my thesis, dating Rita, teaching, trying to get my coursework done. So that the June '48 commencement featured my wife-to-be getting her teaching credential, and I got my master's degree.

LaBerge: In the same ceremony?

Pister: In the same ceremony, yes. I have a picture of her with a teacher credential friend that again is a lifelong friend. She was maid of honor at our wedding, Dorothy Bachand. I have a photo of them by Hearst Mining Building with their caps and gowns. I can't remember, the commencement in '48 was held in the Memorial Stadium, and I do not remember who the speaker was. But I think it was some fairly well-known national figure. [President Harry S. Truman] I do remember in those days still that President [Robert Gordon] Sproul conducted the ceremony, and I can almost still hear his voice when he would say, "Will the candidates for the degree doctor of philosophy all rise?" He was so good. He had such presence. How many times I heard him say that over the years. It was always a thrill to hear him speak.

LaBerge: At this kind of thing, did your parents come? Did Rita's parents come?

Pister: Yes. They did.

LaBerge: Did your parents know her parents and vice versa?

Pister: I don't remember her parents being there, but my parents were certainly there. My brother would've been there. He would've been just starting his junior year then. But certainly my parents were there. I don't know that her parents came. I don't remember that. I'll have to ask her about that. Let me see, what else that summer of '48. Ah yes. Finishing that first academic year as a lecturer; once again I was called by the department chairman.

LaBerge: And who was department chair?

Pister: It was still Bruce Jameyson. I should mention, Bruce Jameyson was an unusual person in that he was a full professor of civil engineering, chairman of the department, but he simultaneously had a full-time job as the county bridge engineer for the county of Alameda.

LaBerge: Oh, my gosh.

Pister: Today, we would question that as a conflict of commitment. Bruce taught a graduate course in structural engineering. His hours were Tuesday, Thursday, Saturday from eight to nine. You can appreciate why he scheduled it that way. His office hours were Tuesday, Thursday and Saturday from seven-thirty to eight a.m. or something like that, Germaine. The faculty that came to Berkeley in engineering at least after World War One, that's what we're talking about, in that period, Bruce was only one of a number. Raymond Davis after whom Davis Hall is named was another one. Etcheverry and Harding the same way. They evidently had some kind of an agreement with President Sproul that enabled them basically to conduct you might call almost full-time businesses on the side. Raymond Davis ran his business from his department office basically. A lot of the people in the building were employed by R.E. Davis Professional Engineers. I don't know if I mentioned this before, but in the early days, when I returned to Berkeley, before the university had health insurance, if you worked for R.E. Davis, you got insurance through the Kaiser plan because R.E. was a great friend of Henry Kaiser. It's the kind of thing that today would simply be impossible to achieve. At that period of history, at least in engineering at Berkeley, it happened.

LaBerge: I wonder if it has anything at all to do with a differential salary scale. I mean, there's something about needing the work outside, isn't it both profitable or more profitable than teaching?

Pister: Certainly there was the chance for additional income. That's always been the case in professional schools, particularly engineering. Certainly that was an incentive to do it. The other thing though is that the interaction of those folks with the practice of engineering brought back a lot to the classroom that was important just like the clinical faculty. It gives you the clinical faculty insight into the profession that often has been missing in periods of history in professional schools, and alas today, is still lacking in education in my view. But okay, let's see. I lost my train of thought.

LaBerge: Well, we went through graduation. You were called back--

Summer Fieldwork: Bedload Transport in Rivers, 1948

Pister: I was called back by my department chair. This time he says, "Okay. We'd like to make you an instructor in civil engineering." So that's when, in July 1, '48, I got on, at that time, the first step of the tenure track as an instructor in civil engineering. So in the '48-'49 year, I taught the same classes and all, but I was now a member of the Academic Senate although non-voting. If you were an instructor of only one year's tenure you couldn't vote in the senate, but you were a member of the senate now. So that was a step up, but some other very important things happened in the '48-'49 year.

I took a summer job--I had just finished my master's degree--with the Corps of Engineers. The chief engineer as I mentioned was Bob Horonjeff in San Francisco, and I did a project. I was paid by the corps, but it was a cooperative project with Joe Johnson and Hans Einstein. My job was to do fieldwork that was connected to Einstein's theory of

what's called bedload transport in rivers. Einstein's doctoral dissertation at Zurich had to do with how rivers move sediment from their beds down to the Delta area and deposit materials, and he established this theory by taking samples in different river regions. So what he had me do was to go along the entire course of the Salinas River taking samples. That means collecting sand and gravel from the bed of the river.

The Salinas runs underground for most of the year except during the wintertime--and my job was identifying where I took the sample and then having the analysis done at the Corps of Engineers laboratory in San Francisco to get the characterization of what the particles looked like and their distribution. He used that material in his theory. So I, along with a more senior person from the office, a geologist, literally drove and walked the entire length of the Salinas River from the mouth clear up to the source at Paso Robles. Well, apart from the engineering experience I got in doing that, which was afterwhile not terribly profound, I had a marvelous opportunity to learn about the history of the Salinas Valley, which was fascinating to learn since that was really a very important part of the development of the culture of early California.

At night, we lived in cheap hotels wherever we were in the Valley, but I often went to the libraries and read. Particularly there was a wonderful book called *The Upside Down River* by Ann Fisher that talked about the history of the Salinas Valley from the beginning. So I became quite proficient in identifying the place names of the Valley and the missions of Soledad, San Antonio, San Miguel, all the way up the Valley, Carmel. So that was a great experience.

New Living Situations in Berkeley

Pister: That summer of '48, I would come home on the weekends. We'd spend the week down there, and we'd drive back. I lived in a home, Mickie Finn and I. In '48, Larry finished his master's degree, I should add, got married and moved away. So that left Mickie Finn and me, and we moved in for the summer to the home of a civil engineering colleague by the name of Fred Hotes. Fred and his wife and one child at the time lived in El Cerrito in a little place, and they were going back to visit her parents or something in the summer and were going to do something. We had the house for the summer. So we lived out there. It was way out in El Cerrito. I'd come home to El Cerrito and immediately take off to visit Rita. I had to drive from El Cerrito all the way to Oakland and come back late at night, both ways on the weekends and, on Sunday evening or early Monday morning, half-dead, drag myself back to Salinas again. So that went on for most of the summer. Broken only at the end by another one of our wonderful pack trips with my brother and Jack Burns again in the Sierra.

The other thing then that happened in the fall of '48 was coming back here to start to teach. Mick was still working on his master's degree at the time, or I think, that might have been the summer also when he--I'd have to check--when the old Institute of Transportation and Traffic Engineering was authorized by the legislature. Harmer Davis, a long-time colleague of mine, was the founding director of that Institute, and he hired Mickie as one of the early hires as a research engineer. I think he started that work even though he was still working on his thesis.

But anyway, we had to find a place to live. So I was probably gone camping by that time in the late summer. He found a place, a house on Virginia Street. I can't remember, but I didn't stay there very long. Anyway it was a very odd place. It was run by a person who in all honesty must have needed mental health attention because she went around in a bathrobe most of the day with a Phi Beta Kappa key safety-pinned to her bathrobe. I only stayed there about two weeks. I can't remember how long Mickie stayed there. But during the time we stayed there, she never gave us a key to the house. So we used to have to go in and out through the back window, which is a little awkward. I remember one night sitting in there and she came to our door looking for a chair.

[7B]

Pister: "No, we didn't see your chair." "Close the door." Came back again looking for her chair. Well, that wasn't really what drove me out. There was something in the room that hit me, and I got the first ever attack of asthma that I later on had to deal with. I thought it was just about the end. I'd never had asthma before, but something really nailed me. So I promptly left and told Mick, "You're going to have to stay alone. I can't live here." I don't remember where I stayed for the next few nights or whatever, but we managed then to find an apartment on Le Conte, 2559 Le Conte. I still remember that number. It was a little one-room-studio kind of thing with a little bit of a shower room and a tiny kitchen, with no refrigerator, but a typical old oak wood icebox.

That icebox was a problem because Mick and I--. Well, by that time he was dating a girl who lived in Smythe-Fernwald Dorms. So he was tearing off to see her regularly, and I was going to Oakland. We had a deal that one of the two of us had to get ice on a regular basis and bring the ice in and feed the icebox. That was one of the remembrances that I have there and the other one of taking our shirts and sprinkling them under the shower and doing the ironing of our shirts. Drip dry wasn't known at that point yet. The other thing I remember about that period living on Le Conte was that this was a time of the presidential election when the *Chicago Tribune* claimed that Dewey won and showed Truman holding up that sign, because I was at that point still a staunch Republican. Mick was a Democrat. He gave me a real bad time that my guy lost.

Change in Direction from Professor Popov's Course

Pister: The '48 academic year now as an instructor, I was still teaching essentially the same courses. But I also took a graduate course from Egor Popov that actually was, I think, the turning point for my professional life. It was a year course, CE 230 A-B, a course which later on in time I taught regularly as a faculty member. But that course was a tremendously eye-opening experience for me because it was fairly abstract on the one hand; yet its applications were very clear. But it was taught at a level of sophistication that was so far above what I had had as an undergraduate at Berkeley, even in my graduate year; it really put mathematics and physics to work for the first time in my experience. I had loved that as a sophomore when I took a very good math course. So it showed me right away that hey, this is something that I enjoy.

LaBerge: What was the subject?

Pister: Basically, it was a course that talked about materials and how you could formulate problems to predict how materials would behave when subjected to temperature changes or forces of different kinds, materials and structural elements like columns and rods and beams and things like that. So it was a course that enabled you to learn how to set up problems with a mathematical structure, then use applied mathematics to solve these problems, which would be essentially simulations of a real structure or a real element of some kind. It was a methodology that had been largely a consequence of French and German schools of the nineteenth century, and most of the literature of the time was still in French or German. Popov was very familiar with that literature, and as I said his mentor at Stanford, his dissertation supervisor, was this extremely eminent Georgian, Russian Georgian named Timoshenko who ultimately wrote three or four books that became the canon books of this field for many years. So we were acquainted with that literature. Popov basically opened my eyes to this, and in addition to that said, 'Well, you ought to think about going on for a Ph.D if you really enjoy this." So he was instrumental in getting me started.

I was just reviewing the correspondence of that spring of 1949. Now we're in the '48-'49 academic year. I noticed it was back in February and March that I wrote to Illinois, to Cornell, to Columbia--I don't know where else--for information about graduate study.

Offer from the University of Illinois

Pister: The most promising response that I got was from the University of Illinois. I had written originally to Civil Engineering at Illinois. But by virtue of what I said I was interested in, the chairman of Civil Engineering, the head it is called there--the head of civil engineering gave my letter to the head of the Department of Theoretical and Applied Mechanics, a gentleman by the name of Fred [B.] Seely whose name was very familiar to me since he had written the textbook that I used in a course at Berkeley as a junior in mechanics.

So Professor Seely, looking at my requests and my interest, I think before even doing much of a background check--although I think I did have to send him a brief bio or something--made me an offer of half-time instructor in theoretical and applied mechanics. This was done without any regard to, are you admissible? Did the graduate division admit you yet? [laughter]

LaBerge: Are you sure you want this on tape?

Pister: Things were different in that period of history. People could do things like this. At Illinois, heads of departments were very powerful. This was the graduate admissions, anyway. So it might have been easier. He offered me a position with a salary increase. I got $2000 for half-time instructorship, which I thought was just great. That was an important event that took place in the spring of '49 when I was finishing up here looking at what I was going to do next.

LaBerge: Would you still be on the G.I. Bill, too?

Engagement, December 12, 1948

Pister: Yes. I was still on the G.I. Bill. But apart from finishing up here at Berkeley in June of '49, finishing my first two years as a staff member, I can't leave this period without mentioning December 1948 because on December 12, 1948--

LaBerge: I'm glad you remember that date. [laughter]

Pister: On the feast of our Lady of Guadalupe, after dancing at the Claremont Hotel and returning to 828 Mariposa in the front room. We usually sat in the library. They had a wonderful little library in that home. We actually were sitting out in a little alcove area in the front room, I asked Rita if she would marry me. She said yes. I still remember she had on her pink dress. That pink dress stayed in our family for years. Our daughters used to wear it to dress up like mom in that dress for years afterwards. So it had quite a history. But anyway--

LaBerge: Did you need to speak to her father?

Pister: No. I didn't ask a soul apart from her. Interestingly enough at that point, there was no discussion well, you're a Protestant; I'm a Catholic, anything like that. We just didn't talk about that. So here we are. Now we're engaged. Nobody else knew we were engaged. We kept that a secret until boy, we kept it a secret for quite a while. I suppose people kind of had a sense that this was imminent, but I'll come to that one.

Let's see, I think the other most important thing I ought to mention of this period in 1949, finishing up at Berkeley, I having decided to go to Illinois, Rita decided to take the Grand Tour. She had had a year of teaching at that point.

LaBerge: Where had she taught?

Pister: Rita taught at Washington Middle School in Alameda. I think she taught the sixth grade. She loved it. She did very well there. She saved up enough money so that she could take the Grand Tour along with two girlfriends, two college girlfriends. She went off to Europe, and I think they were gone three months. It was a long tour. Europe, at that time in the summer of '49 was still, some of it was still in pretty bad shape. They had some really unusual experiences. The rubble was still around in a lot of cities, and they had trouble getting food and all. But anyway she did the Grand Tour.

I stayed in California. I didn't work. I think I was with my family that summer. I spent time in the mountains again. My brother and I took a wonderful trip with my Uncle Carl, a pack trip which was really the last time I had a chance to be with my uncle for any length of time because he subsequently died. But we had a wonderful trip up to Tuolumne Meadows. It ended--one day when we were way out. We came back and hiked about twenty-five miles the last day to get back to camp, just utterly exhausted. I don't know how he managed to do it at his age. Anyway, so I left then in 1949 for Illinois.

IV. UNIVERSITY OF ILLINOIS PH.D. PROGRAM, 1949-1951

Cross-Country Trip in a Blue Plymouth Coupe

LaBerge: Had you ever been to Illinois?

Pister: I'd been through it.

LaBerge: Been through it to Chicago but--

Pister: But never.

LaBerge: You never saw the campus.

Pister: No. No. I had no idea what it was like. So at that point in '47 or '48--I can't remember the year now--I got a Plymouth coupe from the dealership of the estranged husband of the woman that had the Rose Street house. I still remember, I was in Stockton when this car became available. I went to the bank and pulled out $1700 in a certified check that was essentially the accumulation of my Bank of America school savings account over the years, putting nickels and dimes in and then all my navy pay that I had acquired overseas, which I had never spent there. So that paid for my car. It was slightly less than $1700 that first Plymouth. Boy, was I ever proud of that car. I remember driving it out to Pete Mayer's place. He was our roommate, you remember.

LaBerge: Who had the connection at Claremont.

Pister: Yes. Right, the Claremont guy. He was living with his folks out in Hayward. I drove out to see him with Rita. So anyway I had that little blue Plymouth, and I took off by myself loaded up with my books and my clothes to go back to Urbana.

But I had no concept of driving across the country, what it would require. Some crazy things happened on that trip. First thing, first I drove from Stockton. I drove up to our mountain cabin and stayed the first night at our mountain cabin. Well, golly this was August. I got up the next day and started out and found there was something wrong with the generator in the car. It wasn't charging the battery. Fortunately it was largely downhill

from there, all the way into Nevada. I remember stopping in Gardnerville, Nevada, which is just over the California line, having to stop and go to a garage there. The guy put in a new generator or rebuilt the generator or something like that. I can't remember, but that delayed me.

Then I took off across the country. Of course when you're by yourself like that, you tend to do foolish things like drive too long and get overtired and all wound up. I can't remember how many days it took me, but I finally got to--oh along the way, I was I think, somewhere in Wyoming when I ran out of gas out in the middle of nowhere. Fortunately a guy came along that had some extra gas and a rubber tube. So I had to siphon gas, which I had done as a kid, but now when I think about it, it's a miracle that one's still alive. You have to pull the gas in your mouth to make it work. You have a mouth full of gasoline. So I got enough gas to get down, I think, it was Rock Springs, Wyoming.

Acclimatization to Champaign-Urbana and to the Theoretical and Applied Mechanics Department

Pister: Ultimately, I pulled into Champaign, Illinois. I think it was on the Champaign side. Champaign-Urbana are adjoining cities. It was after a terrible rainstorm, summer thunder shower that happens all the time in the Midwest. After driving through those endless cornfields. I had the window open because it was warm, muggy, and a truck came by, and there was a puddle, and it splashed muddy water right in through my window. It got all over me. Later on when I went back to Illinois to get an award, I said that was my baptism to life in Illinois. I was fortunate to find a very nice room in a home in Champaign.

LaBerge: It wasn't set up ahead of time. You got there and had to do all this.

Pister: No. So I found a room in Champaign in a house with a garage for my car with a nice big bedroom, shared bath, but big bedroom on the second floor of a big old house. I think the daughter of the lady that owned the house was a staff member at the Urbana campus. I can't remember their names now. I still remember the street.

I came onto the campus and got assigned to an office, which was really nice. It was next to Henry Langhaar who became my Ph.D. supervisor. It was right outside the big testing machine, which was a carbon copy of the one we had here at Berkeley, huge big powerful testing machine. So I felt very much at home seeing that thing there. The building that we were in, our department was in, was called Talbot Laboratory after Talbot who was one of the early deans of engineering at Illinois.

The other really lingering memory I have about that, those first few weeks at Urbana is that I think as a consequence of the tension of driving across the country by myself and going into a new environment, I really had some kind of anxiety attack because I couldn't eat. I don't know if you've ever encountered someone or encountered that yourself.

LaBerge: I haven't, but my daughter has.

Pister: Really, if I went in to try to eat dinner, I couldn't actually eat. There was something paralyzing me. It was kind of scary. It went away, but for a while it was a scary feeling.

LaBerge: Did you go to the doctor or--

Pister: It was a self-fulfilling recovery, but for a few days it was very troublesome. I did have the good fortune of being befriended by an older guy that had three children, Jim Halsey. He was relatively older. He was from Louisiana, and his wife was a real southern woman; they had two boys and a little girl, and they had a nice home, and they had just started a few years ago on the faculty. He was an assistant professor. But somehow, we hooked up, and I often went to their house on Sunday and spent time with the family and had dinner with them and played with the kids. That was a kind of a socialization I had. Then gradually the grad students that I met there, many of whom were veterans, of course, we created our own infrastructure so to speak, and got together and did things together. Then, of course, the academic life started. I guess the other thing I would mention about getting acquainted in the department as I look back on it, I think I must have been really an insufferable person in that I was so full of Berkeley that anything that came up would be--

LaBerge: At Berkeley--

Pister: Yes, "that's not the way we did things at Berkeley." I still remember giving a talk to the department one time, and I shudder when I think of what I said at that department talk. But one thing that was really interesting at Illinois in my department was a tradition of taking all new instructors, no matter what they were, even young assistant professors or people like I who were instructors, and having a weekly session on how to teach the courses that we were supposed to teach. Each of the people had to give a demonstration, short demonstration, and the senior faculty member there was a guy named Leighton Collins who later became a functionary in the American Society for Engineering Education. He ran this thing. It was--not in the presence of Professor Collins--it was called the Hour of Charm. I think there was a radio program at the time called the Hour of Charm. It was a pejorative characterization obviously. We had to sit through those things to learn how to teach. In looking back it wasn't a bad idea. It was just--

LaBerge: It was the way it was done.

Pister: It was done in a way that well, it wasn't the most productive.

First Presentation of a Paper, AGU Meeting

LaBerge: We missed something in the spring, presentation of your first paper, the AGU meeting in Los Angeles.

Pister: Sure. Yes. That happened--should we go back and pick that up now? Yes.

LaBerge: What does AGU stand for?

Pister: When my thesis was practically finished in the spring except for the formal writing up, my supervisor Joe Johnson said, why don't you make a presentation of your paper at a meeting of the American Geophysical Union, AGU, which is going to be held. I believe it was held at UCLA in spring of 1949. So I said, "Gee, that's great. I will do that." I remember going down to UCLA on the Coast Daylight. I think the round trip in that era was something like ten dollars. I went down and gave my paper, and that was the first ever presentation. I can't remember who the session chairman was, but I remember there were some questions, and it wasn't an entirely pleasant experience. I was scared to death of course, and there was something about it that leaves a kind of a not happy memory for me. Anyway, the trip down on the train was really neat. I'd never been, that's a beautiful route. It still is, as a matter of fact. I've never been on it again. Did we miss anything else?

Rita's Visit to Chicago and Urbana

LaBerge: I don't think so. I've been kind of following along. I think we've got everything. Back to--it's called the T and AM department.

Pister: Theoretical and applied mechanics. T and AM. Yes. I should say before the semester started at Urbana, this would've been in late August, early September probably when I was already established there, Rita and one girlfriend, Margaret Crosgrove, returned from Europe, from their tour and stopped in Chicago. I drove up from Urbana and met them in Chicago, and the three of us spent a day or two in Chicago going around. I think we went to the Art Institute and did different things. The memory I have of that time was that I ran out of money and I don't know-- [laughter]

LaBerge: I don't know how you made it so far in life. You keep telling me all these scrapes you got into.

Pister: The running out of money takes me back even to my parents' generation. My father and mother after their marriage went on a honeymoon up the Redwood Highway. Two things happened, my father ran out of money on the honeymoon and had to go to a bank to get money. You can imagine the difficulty in that. Then they were camping and something happened and the gasoline camp stove flared up or something and singed my father's head, hair and face. So I don't know. I can't remember if that ended the honeymoon trip or what. It was not a pleasant experience.

Anyway, I somehow--I must've borrowed money from one of the two. I don't know how in the world I did it. Anyway we got back--I brought Rita back to Urbana then, so she could see Urbana. This was still 1949. We were engaged, but nobody knew it formally. I don't think she was terribly impressed--

LaBerge: That she might be living there.

Pister: Exactly. I still remember, she stayed in what was then called the Urbana Lincoln Hotel which is still there as a matter of fact. It has a different name. In fact she and I have visited there since. But anyway, I can still remember taking her back to the hotel at night and taking her up on the elevator to her room and worrying about the propriety of taking

her to her room on the second or third floor of the hotel. She was, I think, more worried than I. It's a very different world today. I must've also then taken her back up to Chicago to, at that time it was Midway Airport. O'Hare wasn't built. She flew out of Midway back to San Francisco, not Oakland.

LaBerge: Do you want to pick up there tomorrow with life in the T and AM department?

Pister: Yes. I'd like to go on with life at Urbana because there are people there that I'd like to talk about. Of course, the big thing was I started to take [religious] instruction, and that has been a major milestone in my life, of course. Yes. I think that's a good break.

Fellow Students/ Colleagues

[Interview 5: January 31, 2002] ## [8A]

LaBerge: We were going to start today with the years '49 to '50 when you were in the T and AM Department at Illinois.

Pister: Right. I can't remember exactly where we left that off.

LaBerge: I think you had just arrived. We had you living--

Pister: Yes. Right. I remember I didn't live on Hill Street in Champaign. It was 511 South Prairie Street, which was a more apt description of that part of the world because there were no hills in Champaign-Urbana. Although I subsequently learned that there was a place called the Busey Hill. There was a street called the Busey Street. There was a very slight rise on Busey Street, and it was called the Busey Hill, and when it snowed enough, kids used to sled on that hill, but they hardly moved because it was such a gentle slope.

LaBerge: Now, was [later University of California President] Jack Peltason there when you were there?

Pister: Jack actually overlapped me. Of course, I didn't know Jack Peltason. He was a professor in political science and later became dean of letters and science, and we certainly overlapped. He had already been teaching I believe at, golly what was it, one of the seven sisters, Smith [College].

LaBerge: At Smith.

Pister: At Smith, before he went to Illinois. So we were both present but unaware of one another at that period of history, as often is the case. I want to talk a little bit about getting to know people and inserting oneself in a very new experience. The class of graduate students that I was in was a wonderful group of young men--there were no women in our program whatsoever, at least at the time I was there. There are now--most of whom went on into academic positions in the United States, different institutions. I might just mention the names of some of them: Chuck Taylor who became a faculty member at Illinois and then retired and went down to the University of Florida. Chuck and I are still

in close contact. He has a special connection to me, which I'll bring out subsequently. There's Art Boresi who was a long-time faculty member at Illinois after his Ph.D. and then retired and went to the University of Wyoming and chaired the civil engineering department at the University of Wyoming. I understand he has a forty-acre spread outside of Laramie, Wyoming, I guess where University of Wyoming is.

LaBerge: I think so.

Pister: Dale Carver, who left Illinois and went down to Louisiana State University, and retired from there. I reconnected with Dale in a very interesting way. Once, sometime during the 1990s, I was on a flight to Washington. I sat next to a gentleman by the name of Smith who turned out to have been the recent president of Chapman University in California. I told him I had been at Illinois and he asked me if I knew Dale Carver. I said, "Yes, I certainly do. He was a classmate of mine." He said, "Well, Dale was married to my sister for many years. They're separated now but still friends." So he told me about Dale, and I learned that Dale had written a book of poetry after his retirement, and he was kind enough to send me, or have Dale send me that book. We reconnected, and it was a book of very, very emotional, very touching poems about his experience in World War II in Europe. He was a young infantry officer I believe, and he wrote some very, very gripping poems about that experience. He never spoke about that during the time we were grad students together.

There was Bill Jordan who was from the South and went back to the University of Alabama. Al Hausrath who came from Iowa State. He was married just before we were, the year before we were I should say, to a young woman who was on the faculty in the home economics department at Illinois, whose mother and father were faculty members at Iowa State. Their first son was born about the same time our first son was. A lot in common, we shared a Thanksgiving dinner with them I think the first year we were back there married. The other person I have a real strong memory of is a wonderful Chinese grad student by the name of C.K. Liu.

LaBerge: L-U?

Pister: L-I-U. C.K. was one of a group of Chinese grad students who were in the United States at the time of the Communist takeover in the--when would that have been, in the late forties or about that period of time? They had the very tough decision to make of whether or not to stay in this country as political refugees or go back to China. Many of them stayed of course. C.K. did, and he went back--I shouldn't say he went back. He went to the University of Alabama at Tuscaloosa and retired from there as an academic. He always, on the side, did pencil sketches. He was a very talented portrait artist. I now have a number of portraits that he did of faculty from that period including my dissertation supervisor. When was it, in 2000 when I had my fiftieth anniversary celebration, C.K., from a portrait that was sent to him, did a very nice sketch of me to join that group of people that he knew at that time.

Camaraderie and Climate

Pister: So there was a wonderful group. We had a great camaraderie in the department because we were all veterans, virtually all veterans of World War II and many starting their marriages and starting their families. That was a very supportive element of life then. On the other hand, I was living by myself, and I ate breakfast normally in the Illini Union. The student unions of the Midwest universities were substantially better than the West. The Illini Union, for example, was built with WPA labor and funds during the Great Depression years. It was a beautiful building with excellent facilities. So one could eat--I ate breakfast, lunch and dinner at the student union. I got to know some of the regulars there. For example, two young women faculty members who were teaching in the home economics department. I used to eat with them regularly.

The other nice thing about the union I'd like to mention is that they had a wonderful reading room there, very much like our Morrison Library room here. I often spent part of my lunch hour in that reading room just kind of relaxing and reading outside of the engineering reading that I normally would do for the rest of the day and night. I think the other, the major adjustment that I made at that time was learning to deal with the change in climate. I remember the first snowfall in that year in '49. I think I was teaching a class. I looked out the window, and I saw the snow coming down, and it was such a novelty for me that I stopped the class and said, "It's snowing outside." I think the class must've thought I was nuts; at least the easterners and midwesterners did, but it was quite a novelty.

Of course, that was not without its problems for a California driver. I remember the first good freeze we had. I came up to an intersection in Champaign driving too fast, and the light changed, and I put my brakes on and I went through the intersection crosswise, unable to stop. Fortunately there was no traffic. That was an adjustment learning how to drive in that cold weather with the ice on the road.

Another example of the kind of fun we had as fellow grad students there: we used to play football usually on the weekend, play touch football. I had done a lot of that at Berkeley before we left in the late--I hadn't mentioned this before, but in the '47-'48 academic years, we had some wonderful fun here. We used to go down Friday afternoon to Edwards Field and play football, touch football. So this was great to go, to be able to do that back at Illinois as well. The only difference was that often we played with snow on the ground. That was not particularly enjoyable again for a Californian to learn how to play football on the snowy field.

Instruction in Catholicism

Pister: Perhaps, the most important thing that I should turn to at this point would be sometime in October or so of 1949 after I settled in there. I can't remember entirely the motivation for this, except that it probably had been on my mind for a long time, I felt that I really owed it to my engaged lady friend Rita to try to learn something about what it meant to be a Catholic.

LaBerge: Was it open knowledge now that you were engaged or not?

Pister: No. It was still just between us. I remember, it took a certain amount of courage--

LaBerge: I would think.

Pister: To call the Newman Hall and ask in fact if they had anyone there, I think I knew the term "to give instruction." I remember I called up and I said, "Am I talking to a priest?" I guess that offended the priest that I talked to because he announced who he was, that he was Edward J. Duncan, STD [Doctor of Sacred Theology] such and such pastor of the Newman Center. I got to know Father Duncan later on, and he was quite an interesting man. I'd like to talk about him subsequently. But anyway, I did find out that yes, there was a class in instruction, and I was told when it was. I remember showing up there, and the priest that gave this class--there were maybe only four or five people in this class--was a British guy, an Englishman by the name of Edgar Taylor. He was really something else. Today I'd marvel at how I ever became a Catholic given Edgar Taylor and the book that we used to introduce one to the Catholic faith.

LaBerge: What was the book?

Pister: It was a book entitled *Father Smith Instructs Jackson*. The name itself is enough to put you off, right? It was a typical book patterned after the *Baltimore Catechism* of questions and answers, and most of the questions and the answers were fittingly at the same level, bordered on the absurd. Yet, I sat in that class. Father Taylor was--in spite of the fact that he was very opinionated and very short-tempered and the kind of individual that you wondered why he ever became a priest. He still had obviously some enduring qualities, because I sat in that class wondering when it was going to be that I'd reach the point where I'd say, "This is not for me. I can't deal with what I'm hearing." Oddly enough--and who knows in one's life and experience why these things happen the way they do--that never happened.

Even though I had been raised in an anti-Catholic environment. The advice I remember saying about my father telling me this. It wasn't a militantly anti-Catholic family, but certainly there was nothing in my experience that would've softened the line that I had seen drawn by my family between being a Catholic and being a Protestant. So that never happened, and by, I guess I should say, the grace of God, I completed the course of instruction and on January 15, 1950--I remember the date well, because that's my brother's birthday. I received--and this of course is always a bit of an amusement--I received baptism as the certificate says, sub conditione, conditional baptism, because I had affirmed that I had already been baptized in the Christian faith as a Congregational Protestant. In those days, you couldn't-- [laughter]

LaBerge: Just in case.

Pister: Exactly. Just in case the other baptism wasn't entirely to God's liking. So I was baptized--

LaBerge: Did Rita know you were doing this?

Pister: Yes, she knew. Rita knew I was taking instruction. But, I don't remember, to insert an editorial comment, in those days one didn't, at least we didn't, make a lot of phone calls. I

mean, I never called. We wrote back and forth. Our letters are still extant. But we wrote back and forth, and that had its own problems because of the time lag, changes of things by the time you had written something and everything had changed. The person had received the letter, and everything's out of phase when you do that. You may have gone through the same thing. Anyway--

LaBerge: Your parents, did they know you were doing this?

Pister: My parents did, yes.

LaBerge: What was their reaction?

Pister: There was no overt reaction at that point at all. Later on I'll talk more about this, because of really, in retrospect, a very unfortunate, regrettable situation of when my brother was married, and I didn't take part in the wedding party and so on. I'd like to come to that at a different point. Anyway, I took instruction. I was baptized conditionally, and I received First Communion, and that began for me a period in my life, when I look back, that was just an amazingly enlightening experience for me. For reasons that I'm not entirely clear as I look back, it was just something I was prepared to do. But what I'm getting at is that from the time of my reception in January of '50 until I left Illinois in June of '52, I attended daily mass at 6:25 in the morning. I never missed one day. It was not just going to mass every day, but there was a small group of people, maybe a half a dozen, they were all grad students from different disciplines at Illinois that attended that 6:25 mass.

Reflections on Living One's Faith

Pister: That mass was typically said by a priest, Edward J. O'Rourke, who later became the bishop of Peoria. He was just a young priest at that time, a wonderful young guy, totally different from the pastor and the Father Taylor that I mentioned. Father O'Rourke loved the *Missa Cantata,* so that I learned the Gregorian chant with this group of people, all of whom were far more indoctrinated in the faith than I. So I learned to sing the chant, all of the Mass of the Angels, the Mass of the Dead, all of those, the litany, the whole thing. It was a wonderful experience. It was just the kind of discipline, I think, and kind of inspiration that was appropriate to me at that time in my life.

LaBerge: You were just ripe for it.

Pister: Absolutely yes. It certainly carried me through some, I think, the formation I received at that time was such that it carried me through some tough situations later in my life, and certainly at the time it was worthwhile. I was obviously not the typical graduate student in mechanics at Illinois at that time. This guy goes to church every day. I had a Turk officemate who the last thing he wanted to do was to see a Christian. Anytime anything about Christianity came up, he about lost his mind because of the Crusades. One of my other roommates there was a Jewish guy from New York, and all religion was kind of foolish to him. So it was quite a mixed group.

LaBerge: Did Rita come out for that, or was anybody there present?

Pister: At my--

LaBerge: At the baptism.

Pister: Baptism, no. What happened at, sometime that year in '50, I was also confirmed. The Bishop of Peoria came down, and his name was Schlarman, a good German name. Bishop Schlarman confirmed us. My sponsor there was a young Italian-American fellow from Chicago, Lou Rodino. Lou was my sponsor at that confirmation, and subsequently we went to his wedding a year later or so up in Chicago after we were married. I'll talk about that because it was very interesting experience. A family came, the family that I mentioned earlier that befriended me, the first year. I didn't mention their name. It was Jim Halsey, like Admiral Halsey, and his wife and their children came to that confirmation mass.

There was an amusing incident at that mass, a noon mass, a very long one because the bishop was there and all the confirmation proceedings had to go on. Father Duncan, who was quite a strong personality, at one point I was told was in the back of the church and said to the assembled multitudes standing in the back, "If anyone leaves this church, I'll kill them," because the bishop was there. Father Duncan was the son of a very wealthy banker in Illinois and he drove a black Cadillac or he was chauffeured in a black Cadillac by one of the students.

The Newman Center there had a dormitory. So people could live there and board there. It was a terrific place. I owe a huge amount to the Newman Center and the cultural programs, the social programs that we enjoyed at that center. For example, on one occasion Father Ted Hesburgh, who later became president of the University of Notre Dame, gave a retreat there. So I met Father Hesburgh. Thirty years later I attended, when I was dean of engineering, I attended a function over at the San Francisco Airport at one of the hotels there for the GEM program. The GEM program was headquartered at Notre Dame, and that's the Graduate Engineering Minority program. It was a scholarship program for underrepresented students in engineering. Father Hesburgh came out to attend that meeting, so I was able to meet him and talk to him personally and tell him about the fact that I had heard him give a retreat some thirty years before. He was very gracious, a very fine gentleman.

LaBerge: Before we leave it, you might not want to talk about this now, or you might later, what are your reflections on how you came to this with a scientific background--because some scientists are so rational that the faith thing doesn't work.

Pister: Sure. That has never been a problem for me. I see faith and rational science to be complementary and not competitive, basically. Certainly science can't explain faith, and I think one has to make an act of faith somewhere along the line no matter what the consequence is, whether your decision is well, I don't believe anything beyond what I can see and touch and so on. That's a kind of negative expression of what I'm talking about. No, that has never been a problem for me and for many people that are scientifically educated or based, but for others not. Faith is a gift. That's all you can say. A particular insight into the *raison d'être* for one's life, and you either have it or you don't, and I don't think you can force it onto people obviously. History is full of failures of that type. I guess the other thing that I would like to mention is something that-- [tape interruption]

In addition to learning Gregorian, and basically, in just reflecting on this, I think one of the exciting things was that it reawakened my interest in Latin. I had a Latin missal, of course, Latin-English both, and so it was just really great to--what shall I say--refresh, walk back over the paths that I had studied as a high school student. The other thing is vicariously I learned the call of responses and watched the liturgy for the service of mass. It simply began more or less accidentally when Father O'Rourke would come in, there'd be no mass server. So I would volunteer to be the mass server. I learned to serve mass as a result of this, which I found to be really quite satisfying, very interesting.

A couple of side comments there: Father Duncan, the pastor, was probably one of the fastest guns at saying the Latin mass in those days. I think he was timed once, and he could do a seventeen-minute-mass. I served Father Duncan once, and he asked me, "Why are you so slow?" I said, "Well, Father I didn't learn this as a boy. I was a late learner, and I have to be a little more cautious in the way I do things." Anyway, that was another reinforcing experience for me at that time.

LaBerge: Were the priests from a certain order?

Pister: No, they were all diocesan priests, as I said. Father Taylor left at some point long after I left Illinois. I understand he became a pastor somewhere. I hope he mellowed out a bit. As I said, Father O'Rourke became the bishop of Peoria. I'm sure both are dead now. Father Duncan, as far as I know, is still alive. He must be quite elderly. He had a jubilee some years ago, and I wrote a letter to him expressing my support.

LaBerge: Congratulations.

Pister: Certainly a letter of congratulations or gratitude, yes, my gratitude for the experience I had at the Newman Center. He sent me back a very nice note, I must say. Okay, so that was one important experience in the '49, '50 period.

Formal Engagement to Rita, 1950

Pister: The second important experience in 1949-50 occurred back in early February of 1950 when upon telling my classmate Chuck Taylor that I was going to become formally engaged and I needed to buy an engagement ring, he said, "My wife Nickie's father is a jeweler in Chicago. He loves to help out students." So thanks to Chuck and Nickie Taylor, Nickie called her father and said one of our grad student friends needs to buy an engagement ring. So he said, "Fine. Have him come up to Chicago." Yes, up to Chicago. So I took the Illinois Central train one day, one cold wintry day in February, 1950. Rode up to Chicago, went to his building which was typical. He was a wholesale jeweler. You go up, and there, you have to speak through speaker phones and iron grills and solid steel grill doors and so on, and he let me in. He was a very decent gentleman. He sold me my wife's diamond engagement ring, I mean, the stone and the setting.

LaBerge: So you picked it out.

Pister: I picked it out. He set it that day because I stayed somewhere, came back and picked it up.

LaBerge: I mean, did you know her taste and her size and all of that?

Pister: You know, I'm not sure that I did. I knew she wanted platinum, and she didn't want anything terribly fancy in the way of the setting. So anyway, it was just a single solitary diamond. So I went back with the ring in my pocket. I left my wool scarf in his office, in his shop by the way. That had to be sent down to me later on. It's funny that one remembers these things.

[8B]

Pister: I put it in some kind of a package. I don't know what it was. Went down to the Champaign post office to mail this--amazing you'd put it in the mail. I said I wanted to insure it. The guy said, 'What do you want to insure it for?" I gave him the figure. He said, "What is it?" I said, "It's a ring." He said, "You don't want to send it that way. It's not wrapped well enough." So he sent me home. I got a little metal box, which I placed in a plastic kitchen container and I rewrapped it and made it much more secure. So I mailed my wife's engagement ring to her. [laughter]

LaBerge: Very romantic.

Pister: It just seems really weird. So she got it. It was a Valentine's present. So she announced her engagement to her family approximately at Valentine's Day. She had an announcement party at the Garden Court of the Palace Hotel in San Francisco. Subsequently in that spring of 1950, my mother's cousin, Gladys Triebel was her name, who lived in San Francisco, that was a cousin that was one of my mother's favorites from her father's side of the family. She had come down to stay, come over to Stockton at the time of the 1906 earthquake to be with my mother. So they were about the same age and very close friends. Gladys Triebel had a family party announcing my wife's engagement to relatives in the Bay Area.

LaBerge: Were you home for that?

Pister: No. No. No, I wasn't here. So that was obviously another significant event in that 1949-50 academic year.

LaBerge: So you set the date then or--?

Summer of 1950: Working with Egor Popov; Resetting the Wedding Date

Pister: At that point, we had more or less decided it would be in the late summer of 1950. So I finished my first year there [at Illinois] in June of 1950 and hopped in my little blue Plymouth business coupe and drove back to California and had a really interesting summer in 1950. Lots of things happened. Of course, a good part of the summer I stayed in Berkeley, living in the house of Professor Egor Popov.

LaBerge: Was he there or he away?

Pister: He was there. He and his wife and son and daughter. But that was the summer that Professor Popov was very busily working on his first textbook. I had already collaborated with Professor Popov on writing a correspondence course in this same subject, which had been published already by University Extension. So we had gone over a lot of the material. He kind of looked at me not as a co-author but as an assistant in writing his first book. What could be better than to have me live in his house and help him critique his writing. At the same time, I was also teaching in the engineering summer session in 1950, courses that I taught when I was out here on the faculty as a lecturer and instructor. So that was important for me for a source of income as well as a chance to work with Popov.

It was really amusing. Recently, I completed an introduction to an oral history that Professor Popov had done shortly before his death this last year for the Earthquake Engineering Research Institute. I wrote the introduction for that, and recalled that summer in the introduction, how important it was both for his book writing and for me. It was amusing because I used to come in often quite late at night. And he'd be sitting in his living room at a desk waiting for me to come back after having been visiting with Rita, and start asking me questions about his textbook writing, his manuscript. So it was really quite funny. I'd have to critique his approach to a syntactical problem that he was working on. At any rate, it was quite a good experience.

Well, the summer of 1950 turned out not to be the time when we could marry. Rita became ill and we had to postpone--the invitations actually had all been printed. It was scheduled for August 5, which is on the old calendar, Our Lady of the Snow's.

At any rate, we had to abandon those plans. I think because of her illness we really left it kind of indefinite after that point although we certainly were looking at November, Thanksgiving recess when I could come back. So as I recall looking back now, the only time I ever phoned Rita, the entire time I was gone the first year and a half or so, was sometime between, it would've been probably in September or October. I called from my friends' the Halsey's house and said, "Well, let's set"--we talked about when we would set the wedding date. We set it for November 18 of 1950, which was close to Thanksgiving recess for Illinois.

Qualifying Exam for Ph.D.

Pister: So that set in motion a new trajectory in life. I flew back shortly before that date in November. An important milestone I must not avoid would be October 4, 1950. I remember that because it was the Feast of Francis of Assisi, and that was my confirmation name I chose, Francis. We also named our first son Francis. So I passed my qualifying exam on that day. I remember sending a telegram to Rita with the simple statement *candidatus sum* [I am a candidate]. That was a great relief. As I look back on that qualifying exam, I think about all the times I sat on qualifying exams of students and hoped that what I suffered there created an empathy and understanding in the way I treated students subsequently, because it was a terrible experience. I didn't perform well, I'm sure, but they were good enough to pass me. I think most people that take qualifying exams have the same experience. Some exam committees are not as empathetic as they might have been.

LaBerge: Were the people on your committee people you knew and who had taught you?

Pister: Yes. Let's see, three of them had taught me and two of them had not.

LaBerge: Some of them knew your work.

Pister: Well, my dissertation supervisor, Professor Langhaar, was on it. Then I had two mathematicians on the committee. I had taken courses from both of them. Then I had another professor from my department that I had not taken a course from, and I think he kind of resented that fact. I had said that I already knew that material. He subsequently showed me that I did not. Then the fifth member was a member from civil engineering, which was a minor for me. He was in a totally different area from what I was studying at Illinois, and I thought he could've been a real threat to me, but he was very reasonable and didn't cause me any problems. I, just like many candidates, was not at my best that day. I got very confused and didn't do a good job. So okay, that was another important milestone along the way to get that done.

LaBerge: Do you want to go into Rita's illness or not?

Pister: No, it's--Rita for a number of years had a--I don't know what you'd call it--a persistent debilitating ailment that she had to live with. It just flared up and it made it impossible for her to go ahead with the wedding plans. We'll come back to that because--

LaBerge: A few years later, in '62 where it happened again.

Wedding Day, November 1950

Pister: Yes. When this whole thing came to a head. So I think that takes me back on the track. I flew out in middle of November and came back to the Bay Area. My parents came down to the wedding, and we were wed in St. Leo's Church, on Piedmont Avenue in Oakland, on an absolutely miserable, rainy Saturday morning. The rain was just coming down in buckets. We have a picture of my wife getting out of the car with her father holding a huge umbrella over her to get into the church. The priest was named Father Garrigan. Poor Father Garrigan was, he was a typical Irish priest, the type that was afraid he wasn't doing something right, and the sacrament wouldn't work, that kind of thing. He was so nervous that our wedding certificate, the writing on it, is just a person that has palsy or something. Poor guy, he was a very decent human being.

I might back off of that to mention something that happened in the summer before our marriage, that is connected to the wedding, that I think is an important part of my life. It must've been difficult for my mother. In those days, when you got married at least, there was some sort of paperwork that one had to fill out. Since I had not been a member of a parish in California, I was a kind of an unknown person. So my mother and I and Rita had to visit a priest that Rita had known for many years. I had met him before at Rita's home, Father Phil Ryan, another good Irishman who at the time was pastor of a church in Manteca. Manteca being close to Stockton, it worked out fine. I guess maybe my mother and I went. Rita wouldn't have gone there to go to see Father Ryan.

Wedding photo at the College of the Holy Names, Oakland, November 18, 1950

Father Ryan, being a decent guy, said, "I'll fill that form out for you." So it was the kinds of questions that you shouldn't have to ask a person, and I think put my mother in a really miserable position. Questions about me and her and so on. It was just crazy. We survived that though. I appreciated very much Phil Ryan's help in that. He was a really decent guy. It didn't make things easier for my parents, certainly to have to go through things like this. Then getting back, the church, well, you know St. Leo's probably.

LaBerge: I do. It's recently been redone. It's beautiful now.

Pister: In those days, it was a very gray, dark, dismal place inside. It looked very uninviting and not the kind of a place where you should celebrate a wedding, good for funerals but maybe not for weddings. So we were married.

LaBerge: Reception afterwards?

Pister: We had the reception at Rita's home on Mariposa Avenue. My mentor and friend and colleague, Professor Popov, and his wife were there--I think he was the only one from the campus, although perhaps some of my campus classmates. Certainly Larry Milnes and his wife were there. I can't remember.

LaBerge: And your brother.

Pister: My brother and my mother and father and two of my father's sisters came up from the city of Orange to the wedding. It must've been very difficult for them, because they were much more outspokenly anti-Catholic than my parents would've been. They were good sports, and I have to say, in the event that this might get lost downstream, like many things in life when you really get to know something or know people, your attitudes change. I can use this moment to go back.

I forgot to mention, the first time I took Rita to meet my parents, which was some time in, this would've been before we were engaged formally. It would've been some time probably in fall of '47 or spring of '48. Anyway, we drove up to Stockton to my parents' home, and it was still at that time the old Victorian home, which my wife was quite interested in. In fact, my mother pulled out some of the old Victorian dresses of her aunts, and Rita put them on and posed with Victorian furniture. I have the pictures of that still. But anyway, I think, the most important thing that happened that day when I took her home was that my mother aside said to me very directly said, "Stark, don't lose her. She's a lovely girl." [with emotion]

LaBerge: Wow. Oh. That's wonderful. Not many mothers, you hear that mothers don't feel that way about their son's choice.

Pister: No, that was a--even now you see it brings tears to my eyes. So let's see where we are [tape interruption].

LaBerge: We just finished the wedding reception.

Pister: Okay, I can go on. Are we on again?

LaBerge: Yes. [tape interruption]

Pister: That day was memorable in ways apart from the ceremony itself and the rain because Rita wanted to go back and pay a visit to the schools, to visit the nuns that had taught her.

LaBerge: On that day?

Pister: Yes, on that day.

LaBerge: I remember that was a tradition to go back and put flowers at the Blessed Mother's feet and--

Pister: Yes. You're right. See, you remember. We went to Alameda, to Notre Dame Academy so the nuns there could see her and she could put part of her bouquet on Our Lady's statue. Then we went to Holy Names College, and we have a wedding picture of the two of us standing in front of one of the Madonna pictures at Holy Names, which at that time was down by the lake. So we got to the reception quite late that morning. People were standing around. They had all eaten and wondering where we were. Then we took off late that afternoon, and I borrowed my father-in-law's--they had a big old Packard car. We borrowed their Packard and drove down to San Jose and stayed in St. Clare Hotel in San Jose. I still remember that. Basically went down the coast. I think we stayed next at San Luis Obispo and then went to Santa Barbara and spent a couple of nights in Santa Barbara before driving back up. I think we got back up here just about Thanksgiving time, because we had Thanksgiving with my parents and family up in Stockton. Then came back here, and I flew back to Urbana with Rita. We went through Chicago, of course.

New Life in Urbana-Champaign

Pister: I still remember getting into Chicago. It was a miserable snowy day and having to drive from Midway airport down to Urbana, which was I think about 135 miles. But it took us hours, we could only do maybe thirty miles an hour or so because of the snow and ice. It was not a very good introduction to Illinois for Rita.

LaBerge: Had you already found a place to live?

Pister: Yes. Oh. Yes. Boy, I forgot about that. We missed that, didn't we? When I went back to Illinois from California in the fall of 1950, again thanks to my friend Jim Halsey, he had located a house that was being built in Urbana not too far off the campus. It was a house that during the summer was still under construction. It was being built by a faculty member in the business school by the name of Hall. I don't know what his real name was. We called him Skerry, not S-C-A-R-Y but S-K-E-R-R-Y. But Skerry Hall and his wife--they were older people; they had grown children--were building a new house in Urbana on 708 West Vermont Avenue. They had a second floor that was essentially built as an apartment, whether legally or not, I don't know. But anyway it was an apartment. So through my friend Jim Halsey, I learned of this availability, and I was able to book that apartment. So it was a brand new place. We had a kitchen, a living room, bath and bedroom. It was brand new. I think it cost ninety dollars a month at the time. So I was able to at least take Rita to a decent place to live.

So we got back there in the fall of 1950 then and started our life together, which was, as you know from your own experience, a new experience. I can't remember, I think it was not until next year that Rita started to do graduate work there. She took classes in art, art history, and some in education, and actually was just two courses short of getting her MFA when we left and decided that we'd rather go back to California than have her finish. But at any rate, at a certain point, she needed something more than just being at home and being home with her infant, which came along in the next year.

So that year--fall '50-spring '51--was an eventful one because of the fact that it was an adjustment for Rita. We were just talking about that before I came this afternoon, about what life was like there. Being a Midwest small town, it was very much like a Midwest small town! We had regular department meetings, and the wives of the department faculty also had monthly meetings. Rita was very surprised to attend the first meeting and find that the women were expected to bring their mending to these meetings and to use--she said, "I have no mending." Isn't that incredible?

Just to reinforce that, there's a wonderful story that I don't think is apocryphal. There was a Danish professor at Illinois in my department. His name was Harald Westergaard, a very famous applied mechanician who came to Illinois for a period of time in my department. This would've been probably back in the thirties, and subsequently left and spent the rest of his career at Yale. But anyway, there was a story about the Westergaards. Well, the Westergaards really never were comfortable. They really never fit into Urbana because after all, they didn't eat dinner until eight in the evening. So that kind of--

LaBerge: That kind of tells--

Pister: Tells the story of them, the kind of society that at that time was more or less typical. It was a very much of a, I would say typical Protestant-ethic, Midwest, small community.

LaBerge: How did Rita get to know people?

Pister: Well, it was basically she got to know the wives of my fellow classmates, the graduate students in my department. That was really just about all. She had no other contacts. Then for that reason, it was good that she became a grad student herself, because she met people that had the same interests as she did. They had a very good art department there and also art history, and she really was interested and did extremely well. She got high marks in her classes. In retrospect, it's too bad that we didn't stay an extra summer, although at the time it seemed insufferable to spend another summer there, so she could've finished her master's, because she was so close to it.

You reminded me in talking about this of a couple of amusing consequences of her being a graduate student. First, and it's hard to imagine either of these incidents I'm going to say. As a graduate of Holy Names, she apparently had some physical education courses, but not enough to satisfy matriculation as a graduate student at Illinois. There was some question about whether she could get her master's degree even if she completed it because she didn't have enough P.E. courses. It's unbelievable. [laughter]

But the other thing that was really amusing, remember this would've been 1951, when she--I think it's not until the spring of '51 when she started. She, at that point, was pregnant with our first son, and when this was discovered during the registration process,

there was a big stamp put on her registration application, "Pregnant," and she was not allowed to use the women's swimming pool because she was pregnant. I mean, I can't imagine that this sort of thing went on, but it did. Not that she wanted to go swimming necessarily, but I thought it was really good, and she remembered that still, of being barred from swimming.

Birth of Karl Francis, August 1951

Pister: Anyway, we finished the academic year of '50-'51. I don't remember that there was anything more special about that year. I started in that year to do my dissertation research and I was completing my coursework. So we drove out in June of 1951--

LaBerge: She's still pregnant.

Pister: Yes, she's pregnant. Yes. We drove out to California. I remember coming back through Highway 88 and stopping at our cabin. My parents were at the cabin, I think, at the time. It was early, there were snow banks along the road still. We spent a night at our cabin before coming back here to the area. In the summer of '51, I went back teaching summer session again at Berkeley, and we lived with Rita's parents in Oakland. They had a big two-story house, and we had a bedroom in that house. During that summer then Rita finished her pregnancy, and our first son, Karl Francis was born, August 31, 1951.

LaBerge: In Oakland.

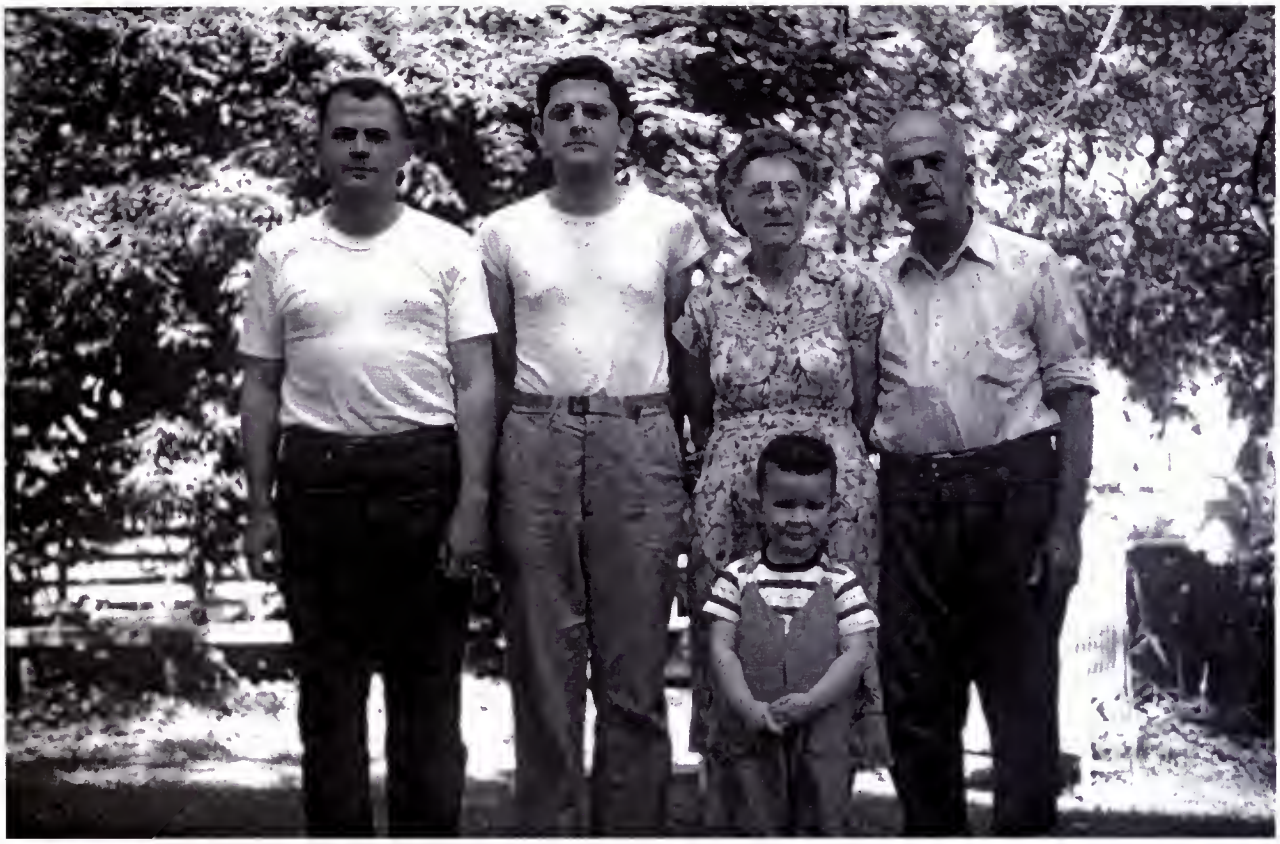
Pister: In Oakland. Yes. I still remember that. Rita's first pregnancy was under the supervision of a young obstetrician who was not known at Providence Hospital. All of our children were born at what was then called Providence Hospital. Now it's renamed. It was still run by the nuns at that time. Anyway, he was a natural childbirth doctor. So Rita's first childbirth, which had about an eight-hour labor as I remember, was done without any anesthesia, and the miracle of that whole delivery, I should say, was that after she had delivered Francis, the doctor came in and said, "Well, your wife has delivered. She's fine." I said, "Well, what did we have?" He said to me, "Well, wait. She's going to tell you." She walked down the hall into the waiting room and told me that we had a son.

LaBerge: Oh my gosh.

Pister: That was an amazing thing. He was a wonderful physician. He spent the entire time with her during that labor.

LaBerge: What was his name? Do you remember?

Pister: Garvey. He left the Oakland area and was practicing somewhere else. So her subsequent obstetricians, her deliveries were all done by another wonderful guy, Willard Calden, who practiced in the Summit group up there. He delivered our other five children all at Providence. I remember the last, when Kris was born at Providence, going down to pay the bill, and the people at the business office said, "Well, you've had six children here



Brother Phil, Karl, Mother, Father, Son Karl Francis -- at Windsor Farm, 1954

now. We have a policy, the seventh one is free." I said, "No thank you. I think we won't take you up on that offer." [laughter]

LaBerge: That's so funny.

Pister: It's kind of like a sabbatical leave.

[9A]

LaBerge: His name was Karl Francis, but you called him Francis.

Pister: We called him Francis. Yes. But he's also subsequently changed his name to Karl.

LaBerge: Oh, really?

Pister: All his friends know him as Karl, but we call him Francis. He was named, as I was for my confirmation, after Francis of Assisi who was a great favorite of ours. As I'll mention, Rita and I and our family have spent some wonderful hours at Assisi over the years.

Parenting for the First Time, 1951-1952

Pister: Okay, so let me now explain the '51-'52 year a little more back at Illinois. Well, we just had our baby born. I've got to step back a little bit. We're still in Oakland and living at my mother-in-law's house with our new infant. I still remember several early events in that period that were traumatic. The first was being at the hospital when it was time to bring him home. Rita was still lying in the bed, and the nurse brought him in. He was all dressed ready to go home, and I remember Rita and I both saying, "Gee, isn't it much easier to deal with him here than taking him home?" I don't know if you went through that. [laughter]

LaBerge: Oh, absolutely.

Pister: What are we going to do? We haven't done this before. Rita had a younger brother, but she had very little experience with babies, and I had absolutely no experience with babies. So we brought him home, but fortunately, I guess, the genetic inspiration is present in people, so you know what to do, and probably with some unsolicited help from her mother we were able to survive. I remember most vividly the first night that I had made formula for our son. She had one of the old canning pressure cookers, remember these big things that you had to clamp the lid down on it and bring the steam up. Our pediatrician, whose name was Alexander Hatoff, wonderful guy, he was a real scrupulous fellow, and he insisted that everything be carefully done. So we had to boil everything in the pressure cooker, sterilize the bottles, sterilize the milk, and I remember that first night to make one batch of formula, it took me the entire evening to do this. I said to Rita, "We're finished. I'll never be able to get my Ph.D. now because I'll have to spend all this time making formula."

In those days there was nothing like Enfamil or all these prepared things that our kids have now. Our grandchildren were brought up quite differently. So it was a task. Of course, one learned how to do this, and over time one learned that you didn't have to do all these crazy things that history had told us we had to do. So that was a really traumatic experience trying to break into that new routine of dealing with an infant son.

I said that there was another traumatic event, and it slipped my mind. I'm sure it will come back to me. The difficult thing that happened at that point then was--this was late August and early September now--I had to get back to Illinois to teach again. I was still a half-time instructor there, and yet Rita and Francis were in no shape to travel yet. So I left them behind and drove back to Illinois. This time I didn't have to drive by myself. I had two, a grad student colleague and then a young faculty member who had been out here in the West who joined me. So the three of us drove back, and that made things much better than driving by myself. I got back to Illinois then in the fall of '51 and resumed my dissertation research and writing and teaching.

Until, oh boy, it would've been probably about six weeks after, so that would've been some time in November when Rita felt that it was possible for her to come back with the baby. They flew back on United to Midway, and I drove up from Champaign-Urbana and met them. In those days, I remember the airplane still stopped way out away from the gate. You had to walk a long way to get into Midway, and it was all snowy and icy, and I think I was able to go out and walk with her to bring her in. It was another one of those miserable Illinois winter days, and here we had this little guy, and she instructed me you've got to get a bottle warmer that will be plugged into the cigarette lighter so you can warm the bottle, and I'll have the milk ready. All these problems, but he behaved quite well, and again it took us forever to get back down to Champaign-Urbana and get plugged into life down there with a new baby.

LaBerge: Had you then, when you went back by yourself, gotten the crib and all that stuff?

Pister: Yes. I'm glad you mentioned that, because in talking to Rita earlier today, I thought about that. I had this business coupe that didn't have a--well, no car would've had a trunk that you could've put a crib in those days. My father had built a crib for me and for my brother that was still up in Stockton. I got that crib. It could be dismantled and put it in the trunk of my car, and I couldn't put the lid down all the way, so part of it stuck out the back.

LaBerge: So you drove it--

Pister: I drove the crib all the way back--we didn't have any money. There was no way I could buy a crib at that point. I drove it back, and we used that crib for a number of our children, as a matter of fact, because we brought it back. So we set up life, and I remember worrying. Every time the baby cried, I was afraid the people downstairs would be upset, and of course, the baby cried a great deal because the parents were nervous and didn't know what to do, and the children pick that up, but you don't know that. So it was an up and down time I must say. Rita was taking classes then, and I remember bundling up our son and putting on kind of an aviator helmet to keep his ears warm and putting him in the car. No car seats, of course, or anything like that, and driving over to the campus to pick Rita up in the afternoons after class. I remember the Christmas of 1951, our graduate student group at Newman Hall put on a Christmas pageant, and I think because we were

perhaps the most readily available, Rita and I and Francis were the Holy Family in the pageant. So we stood there with bed clothes draped over us with Francis as the infant.

LaBerge: So you stayed in Illinois for Thanksgiving and Christmas.

Pister: Oh yes. We didn't go back. The Christmas dinner 1950 Rita and I had with the owners of the house down below, the Halls, and then the Thanksgiving of 1951, we had a joint dinner with our friends the Hausraths. They had an apartment in Champaign, and they had a young son by that time, David. We had Thanksgiving with them. She was, as I said, a domestic science teacher. So she had very clear ideas about how to prepare food and all that. I don't know if she thought too much of what we did. Things went along, and I struggled with my dissertation writing, but I managed with a great deal of help from Hank Langhaar, my supervisor, to get it finished.

Dissertation, 1952

LaBerge: Do you want to talk about the subject matter now?

Pister: When I look back on it, it was a very sort of abstract, arcane piece of work. It certainly helped me to learn a lot, but it contributed very little to the grand scheme of things in my field except to really give me a lot of good experience in how to do research. But it wasn't like an earthshaking sort of thing. But as a matter of fact, it tempered my own sense of what should be in a dissertation when I worked with my own students. Instead of viewing a dissertation as the *opus magnus* for someone, it's very much a stepping stone along the way in one's academic career in my view. I think too many people have, in the past, viewed it as some high threshold that you have to achieve or you're not really doing the kind of work, the quality of work that's needed for a dissertation. I find this to be particularly true in some fields outside of science and engineering, I might add. It's hard to measure this, I know, but certainly I feel that it was wonderful training for me. I did publish a piece of it in *the Journal of the Franklin Institute*, which thrilled me, of course, but it was largely a learning experience and not a great contribution to knowledge.

So I finished that up, and I remember having it typed. It was a terribly complicated dissertation to type because it used subscript and superscript notation. The complex mathematical material had to be typed. This was done on a typewriter in those days, and it had to be done on a special Illinois dissertation sheet that had a red border around it. So the typist charged me twenty dollars, I remember, to do this. It was all done, and I took it into my adviser, Hank Langhaar, to read the last draft--he read the last draft--to read the copy. He read it, and said, "Well, it's okay, but there's one page. There's a word that I don't like. You used alternately, and you should've used alternatively." So sure enough, he was right, and I had to have one page retyped to change alternately to alternatively.

Subsequently I've been a bear on that myself. Every time I see someone misuse alternately when they mean alternatively, I correct it. Of course, that sort of thing is lost today. I was just reading our March voting pamphlet, and on one page in bold type it says, "Who should I vote for?" As Rita said, "We don't inflect pronouns anymore in our society."

LaBerge: So besides the "alternatively," it was accepted.

Pister: Oh yes. It was accepted. At Illinois in those days, we had to defend the dissertation in another convening of your qualifying exam committee. So I had a defense. It was in June of 1952. They all came back together again, and I had to make a brief presentation on what I did and why. I remember some member of the group said, "Does your work have any practical application?" I was just aghast that he would ask that question. I triumphantly said, "Absolutely none that I'm aware of." But that was a mindset, I think, acquired in the dramatic transition that I made in moving from the undergraduate experience that I had here and to a large extent the graduate experience, excepting Professor Popov's course that I mentioned earlier. It was so much the art of engineering and little the science of engineering. So my graduate work at Illinois really opened up the whole spectrum of the sciences that informed the practice of engineering, and I became much more like an applied mathematician than I did an engineer at that period in my life. Later on I'll talk more about that, because it's a situation or a quality of engineering experience that has shifted back and forth like a pendulum over time. It certainly influenced my own views about engineering education over the years. So I finished my dissertation and its defense in June of '52.

Two Memorable Visits to Chicago

Pister: Before talking about the commencement I just want to mention two experiences. I hinted at one already. During that spring my wife and I drove to Chicago to witness the marriage of Lou Rodino and his wife-to-be, Lucille Rodino. They were married at what for Chicago was a very typical ethnic parish, Italian-American parish, where Italian was probably spoken as often as English. It was a wonderful experience. We were there, it must've been early June because at that time it was the Feast of Corpus Christi, which was I think June 6 if I remember the calendar correctly. So we attended a solemn High Mass in this Italian-Catholic church with a subsequent reception at a downtown Chicago hotel, sit-down luncheon with all kinds of toasts and dancing and things that were just, for us, totally new experiences. It was really a neat thing to go through this.

The other thing I would mention is before commencement actually, also perhaps in early June, we made another trip to Chicago to visit, it turned out by coincidence, the classmate Janet Kropp that Rita had come to the Hearst Gym dance with back in 1947. Janet had subsequently married, and she and her husband were living in Chicago. He was a native Chicagoan. At the time he was going to the University of Chicago trying to do a Ph.D. in philosophy with, I can't remember the famous philosopher at Chicago at the time. I'm sure you--

LaBerge: Adler, Mortimer Adler.

Pister: Sure. He never was able to get a dissertation topic with Adler and gave up. Apparently people often sat around the feet of Mortimer Adler for years and never got a topic that he was comfortable with. But anyway we visited Janet and her husband in Chicago. Of course, our son was now not a year old, but we could travel with him. Rita and I were laughing about this again. We had nothing. We had nothing to carry the child in. So what

I did was to go down to Champaign to the back end of a big department store and look for cardboard boxes, and I got a big cardboard box that had a top that fit down over it. It could be taken off. We hauled that up in the trunk of our car. I still remember, Rita and I were laughing about this, going into the lobby of that hotel absolutely sure that everybody there knew that we were bringing this thing in because we needed it for a crib for our son. Just so self-conscious about this, in retrospect, it's hilarious you would've felt this way, but we did. So he slept in the cardboard box in our hotel room because we were too poor to have a little portable crib for him.

We were poor because, at that point, my G.I. Bill had run out. I think I had to borrow $700 from my father, which I never repaid, by the way, to tide us over and to get us back out to California again. So that was a wonderful trip because in addition to visiting our friends, we had a wonderful visit to the Chicago Art Institute. Rita, of course, was in seventh heaven there, and since then, every time I go to Chicago or she's there, we always go to the Art Institute. It's such a marvelous place to visit.

Then we came back to Champaign-Urbana, packed up all of our worldly goods from 708 West Vermont, and I still remember we were able to get everything we owned into twenty-one cardboard boxes and ship them back to Oakland. Then we got in our car. I failed to mention in May, I think, of that year, I traded in my Plymouth Coupe and got a four-door Plymouth sedan. I was big on Plymouths in those days. That four-door Plymouth sedan then became our family car for a number of years. So we were able to put some of our stuff in the car, but the rest of it was shipped. We drove back to California in the summer of '52.

LaBerge: Now I'm looking at the oral history correspondence. Should we go through that? Well, one thing we missed, May 1951, the Waves project.

Pister: Yes, let's go back and pick that up. Let me deal with why--

Decision to Return to Berkeley

LaBerge: Why you were coming back to Berkeley.

Pister: I was coming back. Yes. That's a kind of a glaring omission. Sure. In looking back at correspondence, it appears to me that I started thinking in earnest about what I would do when I finished in June of '52 and started considering different job possibilities. I went through my files recently and discovered that I had corresponded with a number of institutions, among them University of Santa Clara, with Lockheed and with Boeing, because I had thought about the aerospace area. It turned out they were in a kind of depression, and there was not much going on there, although I did get an offer from Lockheed in Burbank, which I was amazed to read about again.

But at some point I think, I inquired of Popov about coming back to Berkeley, and he talked to the chairman at the time who was a sanitary engineer. His name was Harold Gotaas, who subsequently went back to Northwestern and became dean of engineering at Northwestern years ago. Anyway, Harold and he talked, and apparently there was some

interest on the faculty in bringing me back to Berkeley. The problem, as I review the correspondence, was that the chairman, Professor Gotaas, had asked Dean O'Brien for an FTE, but at that point in the spring of '52, he hadn't received any assurance yet that they would get the FTE. So they were thinking of bringing me back in a visiting capacity using non-recurrent funds to do that. But the initial correspondence that I had with Gotaas and Popov was along the lines of, "We like you, but you may not have a tenure track position when you get here." At some point, it became apparent that Popov was going to take a sabbatical leave in '52-'53, and at least I would have the opportunity to be his sabbatical replacement in '52-'53.

I sent my dissertation for them to review and sent some kind of a vita back to the department. So on the strength of this, I decided well, I'm going to go back to Berkeley, although there was nothing in writing apart from these more general statements from the department chairman, which is not at all uncommon for Berkeley. It takes forever to get an appointment approved here. So I came out with that expectation. I had been offered a position at Illinois, but I didn't give that a second thought because my wife made it very clear that once I finished my Ph.D., we were going to go back to California. She had no intention of staying in Illinois.

LaBerge: When did you come to the decision to stay in academia?

Pister: That pretty much happened by default, because the only place that I had any interest in working at that time was in the aerospace industry-.

LaBerge: Okay, so Boeing and Lockheed.

Pister: So I wrote there, the Lockheed offer, I was amazed to find, they had offered me $500 a month, I think, which was certainly more than I would've--I only got $4,860 [a year] at Berkeley, but it was not--the word on the street in the aerospace was high paying jobs. It turned out I was in the trough and not in the crest of the aerospace industry, and it frequently goes up and down in history. So it was not a great time to go. The Santa Clara offer came after I'd already made up my mind to go back to Berkeley. It was a Dean Sullivan whose correspondence I resurrected, and at first he said there was no possibility, and then he came back and said, "Oh yes, we do have a job. Would you be interested?" It was too late. I think I was influenced by going to a Catholic university at that time. I just thought Santa Clara would be a place where I would be comfortable. In retrospect, I'm certainly glad that I came here and didn't go to Santa Clara for a lot of reasons.

Setting up a Household in East Oakland

Pister: So I came out in summer of '52. We stayed with my mother-in-law again and started looking for a place to live. I don't remember how long it took, but we found an apartment. It had two bedrooms, a living room, a kitchen, bath. It was over a garage on an alley in East Oakland. The address was 1820 Gleason Way. It was named after Father Gleason who had been one of the early pastors of Saint Anthony's Church. Saint Anthony's is still there, but not the old wooden Gothic [church] that was there at that time. Gleason Way was, as I say, a back alley, but it was a fairly new conversion of this garage, and it had a

laundry room downstairs, which we could use. It was our laundry room and a place to put the car. The fact that it had two bedrooms and a living room, kitchen, separate, was something, and nobody else was there. That was such an attraction for Rita and for me at that point in our lives. It was only seventy-five dollars a month. I cut the lawn in the back for the absentee landlord, and I think I got five dollars a month for doing that, something like that.

We furnished that place with odds and ends from our families and started our life in Saint Anthony's parish in East Oakland in an area that was already well integrated and subsequently has gone downhill. Unfortunately, it is not a very nice neighborhood anymore. At the time there were lots of first generation immigrants in that area. We attended Saint Anthony's parish, our first two daughters were baptized there. Generally, we really fit in, loved the area, loved the people. They were middle class, working class people, and I was the exception being a professional person in that area. I could drive to Berkeley in those days going on Park Boulevard and get over onto Mountain Boulevard and get to Berkeley in fifteen minutes from there, which could not be repeated today.

V. UNIVERSITY OF CALIFORNIA, BERKELEY, COLLEGE OF ENGINEERING, 1952-1965

Work with Boris Bresler

Pister: So we set up our home there, and in 1952-53, I started teaching again at Berkeley as an assistant professor. I think, we were looking the other day, the appointment was regularized as a tenure track assistant professor in December of '52. I remember, however, I didn't have any appointment at all until sometime in September because I ran out of money, not the first time in my life. I remember talking to Professor Gotaas, the chairman. I said, "When am I going to get my appointment? It was supposed to be the first of July, and I have no money." He said, "Well, I keep a little extra in my account. I can loan you a thousand dollars." I didn't take him up on it. I don't remember what I did, I think I probably borrowed from my parents, but anyway, it was a tough beginning. We had to buy a refrigerator and a washing machine. Those were the two--we got an old Bendix front-loading washing machine and a Frigidaire refrigerator. There was already a stove there. We didn't have to buy the stove.

So we set up housekeeping, and my recollections there that first year '52-53 were putting all my time into teaching because I had to teach a brand-new graduate course for two semesters. The other courses I taught, I taught before, so that wasn't a big stretch. It certainly was a lot of work. Used to take me ten or twelve hours to do an hour lecture--that was the typical preparation period.

The other thing about that period was the getting together with my colleagues and starting my research program at Berkeley. I'd like to say a word or two there. I started to work with a colleague, Boris Bresler, who subsequently became one of my very close friends. Boris was a very interesting person. He had been born in Harbin. He lived in the Russian-Jewish colony in Harbin, China, went to high school there, and came to the United States when he was already an adult and did his undergraduate work at Berkeley and then graduate work at Caltech. I want to at some point talk about Boris and his wife, Joy Bresler, because he was a wonderful companion and had a lot to do with my own Academic Senate career in the university. I would like to mention him when we come to that point.

But anyway Boris and I started doing research together on the properties of Portland cement concrete. It was very fortunate for me because he had a little money, and he had an experimental program started. What I did, I complemented his experimental expertise with my--

[9B]

LaBerge: With your theoretical background.

Pister: Yes.

LaBerge: You put together a research program--

Pister: A research program, which was kind of groundbreaking in this particular area of material properties of concrete, and it subsequently lead to a medal that we shared. It was called the Wason Medal of the American Concrete Institute. So it was a great experience to work with Boris at that time.

Behavior of Torpedo Nets

Pister: The other less profound, but certainly interesting research experience, took place in the summer of '53 when I started to work with colleagues Ray Clough, who was the principal investigator, Joe Penzien, and Charlie Scheffey. Ray and Joe both retired from my department, civil engineering, years ago, and Charlie Scheffey left the department and took another job in Washington, but the four of us were co-investigators more or less on, in retrospect, a very bizarre program for the navy.

LaBerge: Did this come about because of your being in the navy?

Pister: No. Ray got this, and I don't remember where it came from exactly or what the connection was, but it was a program that involved dealing with the behavior of torpedo nets. I didn't talk about this, did I?

LaBerge: No. No.

Pister: Up through World War II, steel nets were used--in fact during World War II, there was a steel torpedo net across the Golden Gate. These were wire nets. They were woven by weaving together circles, suspension bridge steel cable circles about what, eighteen to twenty-four inches in diameter. Maybe the cable was half-inch to three-quarters and maybe a half-inch in diameter would be better. These were interlaced like the Olympic rings to form a net, a kind of a chainmail net. There were special ships called net tenders that carried these nets and then laid them out. They were suspended vertically like a curtain wall by buoys, anchor buoys that would hold them in place, and then they'd put anchors on them. Strung across the Golden Gate, they'd keep submarines from entering the Golden Gate. They'd pull the net open and let the ships come through.

During World War II they also suspended these nets around our carriers to try to protect them from torpedoes. Well, the navy, I guess, felt that there was a lot of experience using these nets, but no one really knew much about the dynamics of their behavior and what could you really expect them to do. What happened when a torpedo hit one of these nets? So we, amazingly enough, Ray Clough and this group were tasked to do a study on the dynamics of torpedo nets.

Well, the most memorable experience occurred off Tiburon. Tiburon was a naval net depot. There was a naval net station at Tiburon. I don't know what's happened to it now. It's certainly not a naval net depot now. At that point there was still a naval facility there. So we worked off the dock there, and we suspended a, or had suspended--we couldn't do it--a torpedo net in Raccoon Straits, which was a place identified between Angel Island and the mainland there. We put instruments on that net, and Charlie Scheffey was the entrepreneur here. He designed an absolutely impossible device that was going to be carried by the torpedo that would activate the instrumentation, which was carried on a giant barge with a semi-trailer that had twenty recording devices. At that time this was unprecedented that you could record on twenty strip charts. But the way, the method of initiating this, by bringing two pieces together on an aerial cable to start the machines going, recording the sensors that we have on the nets, was really crazy, and any sensible analysis would've said it wouldn't work. But Charlie had this dream that it would. So we had people from Mare Island that shot the torpedoes at the net from a barge. These, of course, were not armed. They were run by, whatever, compressed gases that shot the torpedoes, but no warhead obviously. So we had some really strange experiences.

In addition to this thing that Charlie designed not working, one of the shots that the people did, missed the net entirely and smashed into a pier over on Angel Island. Another missed the net completely and wound up on the beach at Treasure Island. One time we were ready to shoot when a sightseeing boat came chugging through the place. So apart from these non-happenings that should've happened for the net, I don't think we ever got any decent data on how the torpedo affected the net or what the response of the net was, what stresses were produced in the network or how far the net moved. Fortunately for all concerned, the navy stopped using torpedo nets, I think subsequently, not because of our experiments, but it became outmoded in the grand scheme of warfare. But it was a wonderful experience, a bonding experience, for the four of us to work together and to have this experience in the field. I think the whole thing was a $25,000 project, and it carried the four of us and some graduate students and all this for more than a year at that time. That was another beginning in research.

Actually just a kind of a footnote to this, it really was a very important step for Ray Clough and Joe Penzien, my colleagues, because they used this experience to start doing numerical work in a field called structural dynamics, which subsequently led to a major program focus at Berkeley in structural dynamics and earthquake engineering. Neither one of them had really had much experience yet in either of these areas, but this planted the seeds for both of them. They subsequently wrote a textbook together that was a classic in structural dynamics. Joe Penzien became the founding director of the Earthquake Engineering Research Center at Richmond, and Berkeley became one of the most well-known centers of structural dynamics and earthquake engineering research in the world. Part of it at least could be attributable to that project.

LaBerge: Didn't you later get into earthquake engineering?

Pister: Much, much later though. Almost thirty years later, twenty years later really when I got back into it. I didn't follow that path. I went a different way. Let's see.

Camaraderie Among Young Engineering Faculty

Pister: The other things in that early period, in the early fifties or mid-fifties now I guess we're talking about: I'd like to say something about the camaraderie of the young faculty in civil engineering. At that time, in a sense it was very much like my experience in my construction battalion. There were a few senior faculty left in the department at that time, but the majority of the department was young assistant professors in the first couple of years of their experience here. There were virtually no associate professors. It was all, you were either at the top, or you were at the bottom.

So that there was I think, a kind of natural coalition formed or natural source of bonding of the young faculty together, not only academically but in our social life. Our social life at that time was pretty much centered around department functions, not formal department functions, but functions that were a consequence of belonging to a department because Berkeley, unlike Illinois, had very little formal departmental social functioning of any kind. I think that probably is still true in engineering at least.

LaBerge: So did this include your wives?

Pister: Yes, we met socially. We had dinners together, did things together. We got to know each other outside of the academic life. On the campus here, we typically ate lunch together. We had brown bag lunches together as young faculty across the board, didn't matter what your discipline was. We met, and it was, I think, very healthy because we talked a lot about the welfare of the department and the college, to be sure, and not just our own disciplines at those meetings. Something, alas, that has long since disappeared in most departments at Berkeley in my experience. We typically went down on Friday afternoon to Edwards Field and played football, played touch football together, had some wonderful games down there, had a lot of fun.

Then we had an annual outing with the students at what we called the ASCE annual student picnic. Typically the faculty would play the students in touch football at these picnics. Since we had a couple of really quite experienced people of measurable statures, should we say, that had played football in college we often beat the students. The other thing we had was an annual dinner with our students, our student engineering society, civil engineering student society, the faculty and the students, and these were typically raucous affairs where things often got out of hand, and we were not invited back to the restaurant the next year. So we had a lot of fun in those days.

I don't know, maybe it's a reflection of just being an old guy, but I don't know that young faculty have this luxury anymore. They're so busy, my son as an example, I think, has some of this, but not the degree that we enjoyed it. We hadn't yet been told that if you're at a research university, you've got to work all the time. We still had time to do fun things.

LaBerge: What did the wives do? Was there some smaller engineering wives group?

Pister: No, there was nothing at that time. Rita belonged to the Section Club, and she was involved in that for a brief period of time, but then with the family growing and all, she kind of gave that up. There was nothing really that was only for the wives that I'm aware of, at that period of time.

Birth of Therese, 1953

Pister: So that, going back to this chronologically, in the period '52 to '54, the next big thing that happened to us, of course, was the arrival of our daughter Thérèse on December 7, 1953. She was born about nine o'clock in the morning, I remember, because we were getting ready to go to mass, and Rita said, "It's time to go to the hospital." We got to Providence just in time and Dr. Calden arrived too late, and he was unable to change into his hospital garb, and he said to Rita subsequently, "You know, I had to have my suit cleaned as a result of Thérèse being born." [laughter]

LaBerge: I noticed on your biography the names of your children, that all the girls have the first name of Mary. Do you want to say something about that? I mean, I think I know, but for historical--

Pister: That was basically named after Mother Mary, and we used that name for all of them. The only one that retained the Mary was our youngest daughter Claire, whom we called Mary Claire, but she's now since changed her name to Claire, too. We still call her MC very often. But all the rest, Mary Thérèse dropped Thérèse and she's Tracy now. Anita and Jacinta are both still going by their given names. We'll talk about them later too. Why they were named-- Thérèse --well, Francis I've mentioned. Thérèse was named after Thérèse of Lisieux who was a favorite of my wife. So Mary Thérèse was born in '53 when we were still living on Gleason Way, and she joined her big brother, and we had lots of wonderful experiences with the first two children in that little place.

But we began to see that well, our family is growing, and we better start thinking about where we're going to live. Rita was born and grew up in Oakland, and I, of course, grew up in the Valley out in the suburbs, not suburbs, in the agricultural lands. So I really liked to be out away from the city. I'm not sure why we went in the direction we did. We felt that the Berkeley hills were probably too difficult to find a place. Even in the fifties it was pretty well built. We weren't sure we wanted to live up on the hills. So we went out through the tunnel and looked in Orinda. We didn't find anything that was affordable to buy even in the 1950s.

So we went out to Lafayette, and just more or less by accident, we found a lot in Lafayette that was owned by a couple that were much older than we were. They had planned to build a kind of a retirement place on this lot. But they decided not to. So we were fortunate in finding a lot that was good from our perspective because it was right next to what would become our parish church, Saint Perpetua Church in Lafayette. At that time that was a very big motivating factor, because at that point we thought there will be a school there, and we can send the kids to the school.

LaBerge: And also the fact that Rita didn't drive.

Pister: Yes, Rita didn't drive at that point. So we purchased a lot in Lafayette in a unit called Lafayette Homelands, which was subdivided during World War II. It was, from a building perspective, not an easy lot. It was a hill, about a 20 percent grade up to the top of the hill. The hill was maybe seventy feet above the street at the top of the hill. But it was a beautiful lot. It was an acre and an eighth, and it had a wonderful view out over the valley in Lafayette and looked like a dream to us.

LaBerge: We have to leave--how about we pick up here next time?

Planning and Building the House in Lafayette

[Interview 6: February 7, 2002] ## [10A]

LaBerge: Last week when we talked, you had just gone out to Lafayette to look at lots. So why don't you tell the story of buying a lot, because of your growing family?

Pister: Right. Let's see, this would've been in the late summer of 1954 when, at that point. we had two children, Thérèse having being born the previous December. We decided that it was time to start looking around. In retrospect, it kind of displays an incredible amount of self-confidence that the whole tenure process would go smoothly, and I wouldn't have to worry about building a house or finding a house and then have to move. Just thinking of that, Germaine, I don't think I ever had the slightest doubt that I would get tenure. Things were much easier in those days because the university was building, and I think most of the people appointed received tenure. On the other hand, in engineering, just as a side comment here, historically, the rate of tenuring of people in engineering had been very high because of the careful process that we had gone through, I think, in selecting faculty. So in my own department, relatively very few people that have been hired, at the beginning of the tenure ladder have not achieved tenure.

Well, back to the lot. We looked a bit in Orinda. We didn't find anything. I queried my wife about the decision to look out over the hills, and she informed me that she didn't really want to move over the hills, but she deferred to me. She wanted to have a house in the Oakland-Berkeley hills, but for reasons that are not clear, one of my colleagues lived there and said it was windy and foggy up in the Berkeley hills. That was kind of a put off. But she always pictured a house in the hills with a view of the Bay. Well, we didn't get that. So we looked around Orinda and didn't find anything.

More or less by accident we found a lot in Lafayette in an area called Lafayette Homelands, which was subdivided just at the end of World War II. The lot that we found was a little over an acre. It was absolutely bare, only grass growing on it, no trees or anything. There's a substantial difference in elevation between the street along the front and the top of the lot, which was 65 or so feet above the street. So we had a major siting problem to deal with. We had already spent a lot of time together thinking about what kind of house we'd like to have. We, in fact, built a balsa wood model of the place, and Rita actually was the architect for the house. She laid the whole thing out. I had gone back into the naval reserve at that point. I had several friends who were practicing engineers who, after we did the floor plan layout, did the necessary detailed drawings and all so that

we could get them approved by the county. We found this lot, and as I may have mentioned, bought the lot essentially with the admonitions from both sets of parents that it looked like an impossible building site. "Did we really know what we were doing?" We were confident that we did and we were so confident that I asked my parents for a loan to help with the down payment for the lot. [laughter]

LaBerge: The only thing you mentioned was that it was near this church.

Pister: Yes. It was not deliberate, but there were only two or three lots open in that particular tract, and they were tied up with builder deals or just not in our price range. So almost by accident, it turned out, the lot actually had one common border with Saint Perpetua's parish church, which later on I'll come back to, caused a bit of a problem I might add. So at that time this was just going to be great. The parish was only two years old when we moved in. We got well acquainted with the pastor during the time we were building, and we thought eventually we'll have a school, and it'll be great. We can send our children to the school.

So we bought the lot and got the plans underway, and as I said Rita was the architect, but we engaged a landscape architect. People, of course, thought we were crazy that we did the building architecture ourselves but engaged a landscape architect. But in retrospect it was exactly the right thing to do, because he was very experienced in siting the house on the lot and in developing the general grading plan and the landscaping plan for the house --which more than forty-five years later, turned out to have been a very nice design indeed. In fact his wife at the time was a member of the faculty in landscape architecture, Mai Arbegast. His name was David Arbegast.

LaBerge: Mai Arbegast. She has a small oral history because I think she did something at the Blake Gardens.[1]

Pister: Oh good. Yes. Mai Arbegast was the spouse. I don't think I ever met Mai, but her husband was a practicing landscape architect also. He did the design work. I remember he did the whole thing for something like $110. It was a marvelous deal and turned out to be a good investment. So we got the plans finished, the house sited and all. Then the question of having it built. Well, it turned out that Rita's father had been a builder in this area. He was a carpenter by profession, a general contractor. He had retired to San Diego, but upon learning of our situation, he was gracious enough to say, "I'll come and build the house for you." So he moved up here and hired people as he needed them as the general contractor to build the house. My father, who as I mentioned was a vocational arts teacher, was an expert woodworker and cabinetmaker. So my father did all the cabinetwork in the house for us, much of which is still there although we've done some remodeling. So the house has great sentimental value for us because of the fact that our two fathers are very much present to us even almost a half a century later.

The building process of the house--I believe this is often the case--did not go smoothly. People have often said, you should never build a house when you're married, and

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1.Mai Arbegast, "Mrs. Blake and the Garden in the 1950s," an oral history conducted in 1986 by Suzanne Riess, in Blake Estate Oral History Project, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1988.

certainly not move into the house before it is finished if you're married, and we did both. But fortunately our marriage survived, but there were some really tough times. The problems were that my father-in-law, having left the area, had really no good contacts with sub-contractors. We had some scurrilous sub-contractors. We had mechanics' liens filed. We had contractors not getting paid and clipping our power lines and just one thing after another. That was compounded by the fact that my father-in-law was a wonderful man but had very little understanding of how to manage money, and we quickly went through our construction loan before the house was finished. As a consequence of all this, I developed a case of shingles and at some point we finally got the thing back on course again. I think we had to borrow more money but were able to pay off all the subs and even though the house wasn't finished, we moved in . That was in March, 1956.

Births of Anita, 1955, and Jacinta, 1956

LaBerge: Oh my gosh. In the meantime, were you still living at Oakland?

Pister: Yes. We were still living in Oakland, and we were going back and forth regularly to do things. That whole thing was complicated by the fact that in November, 1955, in the middle of construction, Rita delivered our third child, Mary Anita. So she was just a little baby when we moved in. The other complication that I shouldn't overlook is the season --we started building, by the way, in the fall of 1955, in September '55. The winter season, 1955-1956, was one of the wettest California winters of record. I can't remember--we had some humongous amount of rain that winter, and we were up on top of this hill, which we had to cut down. We had hundreds of yards of dirt moved around for the excavation for the house and building the garden areas and all and mud was flowing down the hill. The neighbor at the bottom of the hill complained to the county that it was getting mud all over his yard. Generally our neighbors were not happy with what was going on. Of course, the structural frame got soaked over and over again. So it was a tense time. But we survived that period and moved in in March '56. We had just this absolutely barren hillside with mud all over the place, the skeleton of the house and about half of it finished inside in which we could live.

LaBerge: And three little kids.

Pister: And three little kids, yes. Soon to be four because we moved in in March, and Jacinta was born in December of '56. These two daughters were only thirteen months apart. The winter gave way to the summer, and we learned how warm it got in Lafayette with absolutely no shade at all. The first shade trees that we secured came from the drainage creek that runs between Solana Drive where we live and Hamlin Road. There were volunteer willow trees growing there right behind the property of a long-time colleague and neighbor, a person who became my neighbor, faculty member here at Berkeley, Bill [Wilbur] Somerton who was professor of petroleum engineering. I took my car down, and using a rope, I think we pulled seven little willow trees out of that drainage ditch. I planted the trees behind our house for their quick growing. Indeed those trees lasted, one of them lasted until just about five years ago when we had to pull it out for the remodeling of our kitchen.

Anyway, we lived in a pretty primitive circumstance, and of course at that point, we had no air conditioning or anything like that. That was the home experience, and it was certainly an important step for us. We had an open house in December '56. We had a Christmas open house, and I remember I bought a bunch of one-gallon Monterey pine trees, and we used them for the entrance way along our stairway, and I later planted those pines over the years. Altogether I think I've planted something like 125 trees on the lot in the time we lived there. But those Monterey pines, which were one-gallon size in the winter of '56, now are massive trees. So they've been a blessing for us. Okay. I think that kind of completes the house business.

Offers from Other Institutions

LaBerge: That covers it? How about if we talk about your career and what you were doing here and the offers that you had?

Pister: Sure. All that time, of course, life had to go on, although I was spending a lot of time doing painting and doing work trying to get the yard together. But a couple of important things happened. I note from my correspondence that I had a request from the head of my home department at Illinois asking if I was interested in a position.

LaBerge: Is this the letter from Tom Dolan?

Pister: That was Tom Dolan, yes. I had letters asking my interest in positions at Johns Hopkins and George Washington, Santa Clara again came back, but the only one that I looked at apparently with any seriousness was a letter that I received from the dean of engineering at Marquette University. One of the things, interestingly enough looking back at this, that concerned me at the time was, well that year, the '56-'57 academic year, was my year to come up for tenure appointment. The offer from Marquette that ultimately came had to do with a tenure appointment and the position as head of a department at Marquette. It was sufficiently interesting, and at that time for better or for worse, the idea of going to a Jesuit university appealed to me. So I actually took a trip to Milwaukee in December of 1956. I remember the weather here was beautiful, and back there, of course, snow and ice on the ground. I was entertained and treated very nicely. I met the vice president of the university, and it was a very attractive offer. They did all they could to tell me about the housing and all and the opportunities. But fortunately I did not take the offer. It would've been a very bad move at that time because I really was just getting going on a lot of research at Berkeley. With all due respect to Marquette, it was a different kind of institution, different objectives from Berkeley and would've been a bad move. So I stayed home.

At the same time my first Ph.D. student finished. That was Steve Medwadowski. Steve, my first Ph.D., was actually older than I. He had an incredibly complicated career up to that point. He had been a prisoner of war. He had been in the Polish army and captured by the Germans and sent to a prison camp in Italy. Somehow he managed ultimately to get to London. He finished his degree in the Polish university, which was a university-in-exile in London and then came to this country and did his Ph.D. with me. Steve, by the way, at the present time is a very successful, although semi-retired, consulting structural engineer

in the Bay area. He's done some wonderful structures. One that I'm most interested in and proud of is his design of the support structure for the Keck Telescope in Hawaii, which I had the opportunity to visit when I was [UCSC] chancellor and to tell everybody proudly that the engineer for that was my first Ph.D. student.

Award of Wason Medal with Boris Bresler

Pister: The other thing that I should mention at this point in the early fifties, it would've been about '53, I began research with my colleague Boris Bresler. Boris had started some work on the failure mechanisms of plain concrete. His experimental experience and interest complemented my theoretical interest in materials. So together we had a research program that had a modest amount of sponsorship and produced some results that were of sufficient significance to people working with reinforced concrete structures that we received a medal in 1962 from the American Concrete Institute for that work.

LaBerge: Was that the Wason Medal?

Pister: Wason--the Wason medal, yes. So that was a very important step for me to get a research program that was both helpful to develop my own understanding of material behavior and to establish myself as an independent researcher.

LaBerge: Could you just tell me about both how you got the grant money and then how, for instance, your days would work? Like when would you do your research? When would you do your teaching and preparation? How did that--what a day looks like.

Pister: You know that's an interesting question because I had to do that for a week, much later in my career, during the time when the legislature had a requirement that the university furnish work load distribution data to the legislature.

LaBerge: I mean, I know it varies, but--

Pister: I think a faculty member's workweek is a very non-uniform and constantly changing picture of activity. Certainly at that time, especially teaching one's classes, meeting the class obligations was almost a religious commitment. People thought long and hard before rescheduling a class or being absent from a class. So that preempted everything. The fact is, at that time, one did one's research pretty much in the time that was left over after teaching your classes and doing your administrative, or committee work. At that point it would be a lot of both, departmental, college and later on, senate committee work. My best recollection is that the uninterrupted time devoted to research for me occurred at night and on weekends. That had to be spaced in between preparation times for classes so that it was a constantly changing picture as I said, and you found time when you could--you used the time whenever you could find it. But I worked in those days every night and most of the weekends at least part of the entire weekend. The other thing that I ought to talk about, too, in that fifties period, I noticed that there were some other offers--there was a constant stream of people normally from institutions that I wouldn't be interested in.

LaBerge: How would they find out about you, like winning the medal? This was before you won the medal.

Pister: Yes. I really don't know how those things happen. I had published a small amount of stuff by then. So your name's in print. But in those days, one of the vectors of such information was book salesmen, McGraw-Hill, Wiley, Prentice Hall, those people would come around. They met faculty at different places. They often made suggestions to people just on the basis of the visits they made. So that's about all I can say on that. I mentioned to you the Wason Medal. I note here a note to myself in May 1960--the *Cal Monthly* ran an article about the receipt of the Wason Medal, and they cited Boris Bresler and Ken Pitzer, Kenneth S. Pitzer, the chemist. [laughter] I wrote to them and said that I don't think Ken Pitzer really needs this medal as much as I do. Ken I think by then, I don't know if--

LaBerge: He was president of Rice University.

Pister: He'd been president of Stanford and Rice. I don't know if that had already happened, but he was sufficiently well-medaled by that time. So my one chance to get fame in *Cal Monthly* evaporated. I don't think they ever corrected it in the *Cal Monthly* itself, but I got a letter of apology from them.

LaBerge: You know what. We have--now you are telling me these names. That was the Tiburon experience.

UC Radiation Laboratory at Livermore, 1957

LaBerge: We've gone back and forth. I think also the letter from the assistant secretary of the regents appointing you as associate professor. I don't know if we've gotten to that. This was '57.

Pister: Let me say something about that period. Yes. In that period apart from what we talked about getting settled in and being wooed by some other places and getting the house together, I had the beginning of my association with what was at that time called University of California Radiation Laboratory at Livermore, now called Lawrence Livermore National Laboratory. Earlier on, I think it was 1953, I had written to one of the senior people in the laboratory whose name was Enos Kane. Enos was involved in the supervision of the laboratory, not under the UCRL or the university management but it was a Chevron subsidiary of some kind. California Research Corporation, it was called. They managed the laboratory for, I guess, it was the Atomic Energy Commission at that time. That was before UC became the manager of the lab. Yes, it was California Research Corporation. It was part of or certainly related to Chevron.

Anyway, I had written to Enos Kane. I didn't know him, I knew who Enos Kane was. He had received a Ph.D. in Berkeley in engineering during the war or shortly after the war it might have been. So I wrote and asked if there was any chance for a summer job, and I got a polite letter. No, there was no chance for a summer job this year. By coincidence a bit of irony, when I became dean of engineering, Enos was the first chairman of my

advisory committee, and I reminded him of that letter once. Of course, he had no recollection of it. He might not even have written it, but only signed it.

But later on then by 1957, I still had interest in getting associated with the lab because I knew they had interesting engineering problems. So through the help of a colleague in mechanical engineering, Bob Steidel, who had worked at the lab in the summer and had served as a consultant, I got an entrée and went through the necessary security review and got clearances and became a summer employee in the summer of 1957. Joe Penzien, my civil engineering department colleague, who also worked with me on the navy net depot project, also became a summer employee that summer. So we spent that summer of '57 out at the lab at a time when everything was still at the old wooden barracks buildings. That was a navy flight school. It provided stepping stone flight training. They flew, they called it "yellow peril biplanes" out of Livermore during World War II. So that facility had been converted into a research laboratory following World War II.

[10B]

LaBerge: Okay so you both got the summer job at Livermore.

Pister: We basically learned about the nuclear weapons business, the engineering part of the nuclear weapons business, and got involved in structural analysis and material problems and structural strength and stability problems for nuclear weapons. The important thing that happened, I think, aside from getting that experience, was that at the end of that summer of '57, both of us, and I longer than Joe, were retained as consultants in the laboratory under what used to be called Regulation Four of the Board of Regents, which allowed faculty members to be occasional consultants to a research project in the university that was in their field of specialization for which they could get extra compensation. So that I could work up to, I think the limit was 20 percent of one's nine-month's salary as a consultant.

So that summer of '57 began a long-term relationship which continues even until today. For the last three years, I've been the chairman of the engineering review committee for the director of the laboratory under Department of Energy requirements that every directorate at a national laboratory has to be reviewed and graded annually, and the responsibility for this is placed on these director's review committees. So I only mention that because I have a continuity of contact with Livermore that dates back to 1957.

Apart from any technical help that I might have given over those years, perhaps one of the most productive consequences of that long-term relationship has been the opportunity for me to find really challenging engineering problems in my field of mechanics and materials that were of importance to the laboratory, for which they were willing to provide small grant sums to me to engage my graduate students on the campus to study these problems and report the results to Livermore to improve the quality of analysis, and therefore, improve the design of critical systems. So I've had a number of students over the years. Later on one of my own students, Bob Taylor, who has been a lifetime friend and colleague since his degree in the early sixties, Bob and I worked in collaboration as a team with students for many, many years following the 1960s.

LaBerge: Can you give me an example of one of the problems that they tackled?

Pister: These were all problems of the structural design of nuclear weapons. I did a lot of work on the behavior of high explosives, on the mechanical behavior and thermo-mechanical behavior of high explosives, for example. Perhaps one of the most important things though that had a major impact on the laboratory--this was largely due to Professor Taylor, but I was a collaborator on much of this--was, once the capability of doing calculations and modeling on electronic computers became accessible to us, work that Bob and I and our students produced on the campus had a major impact in upgrading the computational capacity of engineering at Livermore. In fact, one of the students who was supervised by Bob, but worked for me as a research assistant for a number of years, headed a computational group. He and his colleagues developed a very robust piece of software for structural and stress analysis that became an internationally recognized commodity. It was called DYNA 3D. So that's an example, although just to complete that thought, I think five of my former students were Livermore employees at one point.

Reflections on Nuclear Lab Work during the Cold War and Now

LaBerge: Could we push that even more maybe--I don't know if you want to talk about this. I just get the sense that in these later years, how did you feel about nuclear weapons then and now--

Pister: Certainly. I started in '57, right in the Cold War period. In the beginning, I saw this as an absolutely essential thing for our country to have a capability for nuclear deterrence. As I look back on it, I'm not so sure it was, I can't say it was the wrong direction for us to go, given what happened. Once the genie was out of the bottle, I don't think it would have been possible just for one of us, either us or the Soviets, to try to put the genie back in the bottle. So we had to live with that fact without entertaining the first question of whether or not it should've been done at all. Once that's done then it seems to me, we followed the only course that we could have followed. I'm certainly in no position to judge whether or not there was an unnecessary proliferation as many people allege. Certainly on the face of it, it sounds like if you count the numbers of warheads you wonder why we needed so many, but I simply don't have a sufficiently informed picture to judge that.

Later on, I guess in looking at the world situation, I've been troubled by the course of history, the way things happen. I've read Rhodes' *Making of the Atomic Bomb* and read about this whole period, but I'm not sure it could've developed in any other way and still maintained the stability it did. The consequences, of course, are enormous. We're left with all of these weapons, which we're trying to get rid of, and Livermore is left with the problem of nuclear stockpile stewardship. So that you've got all these things. You can't just put them somewhere and forget about them. So there's just a lot of things that have to be continually looked at. But I never was sympathetic with the extreme position that everything that has been done is wrong; I couldn't have in conscience joined the protest groups that went there to Livermore to stop it. That's my personal view.

LaBerge: Do you remember when the university did take on the management of the lab and what's your take on that?

Pister: Well, it must've been some time shortly after 1953. It happened between '53 and '57 because, as I said, in '53 when I wrote to Livermore, it was Cal Research Corporation. In 1957, it was already the University of California. I'm happy to say something about my sense of the importance of the role of the university in managing the laboratories. Again, if you have such a laboratory as we do, not just a laboratory, we have two such laboratories at Los Alamos and Livermore, defense program laboratories that are under the University of California--. The Sandia Labs are not.

If you have these laboratories, then I can think of no better institution to manage them than UC. I've struggled with this question a great deal. I struggled with it when I was on the Academic Council. When I was chair of the Academic Council, we had an Academic Senate referendum that year. I remember talking at some length with Charlie Schwartz about that. Charlie had been a long-time opponent of the university's management. I listened to discussions at the Board of Regents during the time I was the chancellor [at UC Santa Cruz] at the time of quintennial review of the contracts.

So I've certainly been party to the discussion over the management, but I feel that if the nation needs these laboratories in its foreign policy, then there's no better entity than UC to manage them. I must say having been at the lab and talked to people over four decades, I know that view is strongly held. The people in the labs feel very privileged to be associated with the university because of the amount, not the total transformation of academic freedom to the laboratory, but a substantial amount of academic freedom is given within the mission requirements of the laboratory. Not everyone agrees with that of course, but certainly in my own experience, there's a strong feeling that they can do a better job by virtue of being part of the University of California. I don't know if that answers your question.

LaBerge: I was going to ask you that sometime. So this is a good time to do it. Now we can go back to the fifties.

Pister: So we're back. That summer out there in the absolutely stifling, hot barracks building with nothing more than an electric fan to blow hundred degree plus air back and forth was a very important summer. Because in addition to making my entrée into Livermore, which has been a lifetime association, my tenure case was going through the Byzantine maze that it must at the University of California and particularly at UC Berkeley. Some time in that summer, probably would've been August, I remember receiving a call from my department chairman. That would have been Harmer Davis who was the founding director of the Institution of Transportation Studies, which was originally the Institute of Traffic and Transportation Engineering. Harmer called me and said, "Gee, I'm sorry to tell you, your case has not been approved by President Sproul." He said, "The word we got back from Sproul--and of course you remember in '57 Robert Gordon Sproul was still very much in control of the University of California--'President Sproul wrote back that it's a good case, but it should wait a year.'" I've often cited that experience when I've talked to people who, when I've been dean or chancellor complained about their tenure case, I have said, "Well, look my case was delayed the first time it went up."

Well, thanks to my colleagues--and I think I have to give credit to Professor Popov here, my mentor, and to my department chairman and Dean Mike O'Brien--it would've started down in the department, they made an appeal case. They put together an appeal case and they went back up to Sproul so that indeed the dean and my colleagues were able to

persuade President Sproul that it shouldn't wait a year because they might lose me to some place else.

Perhaps as a consequence of the promotion to tenure matter which I have already related, when I returned to the campus in the fall of 1957 I received a call informing me that the dean wished to see me in his office. Having no further information ahead of time, I spent a lot of nervous energy wondering what the meeting was for. I still remember the feeling of great anxiety that I experienced in arriving in his office and sitting down with "the dean," whom at that time I regarded as a distant, untouchable figure. The conversation took me by surprise. He told me that my senior colleagues had expressed great concern that I might be tempted to leave Berkeley and that it would be a great loss to the campus were that to happen. He inquired as to my satisfaction with my situation--was there anything that I needed for my research, etc. My experience in such matters left me speechless and I passed up an opportunity that did not reappear!

More than two decades later when as dean of engineering I sat in the same office, I often wondered how young faculty members regarded me and what anxieties they experienced when called to the dean's office, inasmuch as I could not entertain the thought that I was a distant, untouchable figure.

Tenure at UC under President Robert Gordon Sproul and Now

LaBerge: You'd had all these offers.

Pister: I'd had these offers, yes. I did get my tenure appointment. I got that in July, as noted, in July 23, '57 a letter from the assistant secretary of the regents appointing me as associate professor of civil engineering at $7,356 per annum. It must've all happened early in the summer rather than later in the summer. A budget committee review and the ad hoc review and all would have happened earlier in the year. I had just misplaced the dates. The other thing I would mention, and there's a correspondence all the way through my career, the following month in August I received a letter from the chief of civil engineers in the navy saying I had been promoted from lieutenant to lieutenant commander in the civil engineer corps. It's odd, these things happened in step. In 1952, when I received my Ph.D., I was promoted from lieutenant j.g. to lieutenant. In 1962 when I was promoted to full professor, I was promoted to commander in the navy.

Then in 1967 although there was no corresponding university promotion, but I might have gotten a step increase, I was promoted to captain in the navy. So there have been parallel ladders that I've climbed in the navy and the academic world.

LaBerge: Well, we can either cover it now or later. What the difference is now in someone getting tenure? It certainly doesn't go all the way up to the chancellor does it?

Pister: Yes. Perhaps we should talk about that right now. Of course, I got deeply involved in this. We'll come to it in 1990 and '91, looking at the whole reward system for faculty in the university at the request of President Gardner. No, the process has really not changed essentially over the years from that time. The complexity of the process has increased, but

the people who have an opportunity or the obligation to, I wouldn't call it an opportunity necessarily, to take part in the process. That hasn't changed.

Typically, a case begins in the department with a departmental committee of two or three colleagues who put together an appraisal of the candidate. That's sent to the department chairman. The department chairman has a responsibility, the technical term is, as the recommending officer, to present the case to the dean. The dean, depending on the school and college relationship to departments, adds an endorsement to the department chairman, the recommending officer letter. That goes up to the chancellor's office where it's typically then routed to the Budget Committee at Berkeley or the Committee on Academic Personnel on other campuses.

LaBerge: Which is part of the Academic Senate.

Pister: Yes. The Budget Committee then acting in behalf of the senate appoints an ad hoc committee of faculty. The ad hoc committee reviews the case, and the ad hoc committee usually has people in the field and people out of the field for balance. The ad hoc committee prepares a recommendation. It goes back to the Budget Committee, which then makes a recommendation to the chancellor. Now I think probably at Berkeley the recommendations would go to the provost, and all of this is done by provostial delegation. That depends on the campus structure. I don't remember in terms of current university policy, there are some things the chancellor can't delegate. At Santa Cruz I know I signed all the tenure cases. Other cases my executive vice chancellor signed. I'd have to go back and look at the policy on that. But that process has been pretty much the same over my entire career at Berkeley.

What has changed, Germaine, is the complexity that's now attendant to that process. I think I saw this first most clearly when I was dean, and I took part in retirement parties and usually gave a brief statement, a brief appraisal of the person's career. Typically to prepare to do that I would get the personnel file for that particular faculty member and read it. People retiring in the 1980s were hired back, some of them as early as the forties, in fact some even earlier. What I saw was that in those days the recommending officer's letter and the documentation that had to go along with it, that is outside letters of appraisal, evaluations of research, all that, it was *de minimus* at that point. There were many recommending officers' letters that were less than a page. Come to the present, the recommending officers' letters are typically multi-page documents. There are, for a tenure appointment, countless external letters evaluating the person's contributions. There is an extensive bio-bibliographic appendix with all the publications listed, all the committee service, the teaching record. So it's a huge portfolio that has to be put together to document the case. I think in part this has happened because our society and our whole way of doing business has become litigious. In part it's been a consequence of public policy to make the search, search process and the appointment and promotion process more visible, accessible to people. So any time you do that, you're clearly going to complicate the process to protect people. Does that kind of give you a sense of at least one person's view of the process?

LaBerge: Yes. When you've seen it, you saw it as a dean. You saw it as a chancellor.

Pister: And as a faculty member.

LaBerge: Yes.

Pister: I've had different perspectives about the same issue. Yes. Now I guess I would add a different perspective. I've looked over the shoulder of my youngest son to look at his cases and his progression as well. I guess the most succinct way of putting this would be if I compare my tenure case to his and my promotion to full professor to his, I'm left in the dust. The level of contribution and the amount of contribution are substantially different. It's, I think, typical of something we haven't talked about, the evolution of the nature of a university like Berkeley, which is now called a research university. When I joined the university, it wasn't called a research university. It's the dramatic impact that research has made and the importance that research has become in the academic life and the nature of the campus--its understanding of itself, the way it relates one part to another and so on. Something that I could talk about in great length at some other point I think.

LaBerge: So should we come back to that.

Pister: I think I'm going to be taking part in a symposium, as you know, to talk about this very thing in a couple of months.

LaBerge: It kind of goes in with one of our topics of the postwar changes. Okay, so we'll leave that.

Pister: Yes, there is something else that I'd like to mention before we leave the fifties--

Relationships at Caltech

LaBerge: Going to Caltech?

Pister: Yes, it would be my more or less chance meeting with a professor at Caltech with whom over the years I carried on a lot of collaborative work and the two of us became good friends and colleagues in the broadest sense. There was a meeting here at Berkeley. It would have been probably in '58. I can't remember the nature of it, where by chance I met a professor of aeronautics at Caltech, Max Williams. Max and I hit it off from the beginning. He and I had similar interests in mechanics. So he invited me to come down to give a seminar at Caltech. I did that.

LaBerge: What was the subject?

Pister: I think it was on vibration of plates. It was talking about work that would have been that of my second graduate student, Ellis Dill, his dissertation work. At any rate, I became acquainted with Max. Then I had a sabbatical leave, it was a one-semester sabbatical leave in the fall semester of '59. It would have been the academic year '59-'60.

Viscoelasticity Work with Max Williams

[11A]

LaBerge: The sabbatical.

Pister: It was a one semester sabbatical that I took, and I just spent a couple of weeks down at Caltech in a laboratory called GALCIT, Guggenheim Aeronautical Laboratory California Institute of Technology. I became acquainted with a number of Max's colleagues, the group in Aeronautics. Caltech doesn't have departments. He was at that time beginning work in a field called viscoelasticity. Viscoelasticity by itself doesn't connect to anything except that the work he was doing in viscoelasticity was associated with developing a better understanding of the mechanical behavior of a very important new kind of material application, namely solid propellant fuels for rockets.

LaBerge: I was trying to figure out how what you were doing had to do with aeronautics, but now I see.

Pister: Okay. It was a materials and structure and stress problem. The Polaris program, if you recall--

LaBerge: I remember.

Pister: The Polaris program was an unusual juxtaposition of the thinking of two very powerful Americans. One was Admiral Hyman Rickover, and the other one was Professor Edward Teller. Teller and Rickover's minds conceived of the idea of putting a ballistic missile on a submarine. In order to do this, you couldn't safely use the liquid fuels that were used for rocketry at the time. It would have been an impossible safety situation to do that. So the challenge was--apart from the challenge of building a submarine on which you could put a ballistic missile and firing it--the challenge was to develop an energy source, a fuel, for those rockets that would be relatively stable compared to the liquid fuels, which had to use very high energy and dangerous combinations of materials. So the material that was chosen typically was a polymeric material that would be the binder that could be cast. You'd mix in with this polymeric material the necessary ingredients to provide the energy, like potassium chlorate.

This composite material that was put together was not well understood in terms of its ability to sustain load, pressure or just hanging in the missiles, because it was kind of like a stiff Jell-O. Viscoelasticity was a field of material science that studied such materials, and Max created a research group, and I got very much interested in this group and the work they were doing. At the same time Max was well connected to Wright Field, Wright Air Development Command in Dayton, Ohio.

No. Wright Patterson Air Force Base. He had contacts there. So I joined him once in a visit to Wright Patterson Air Force Base to talk to engineers there that were interested in developing a better understanding of laminated plate-like structures with the expectation that laminated plates might be better resistant to propagation of cracks in vibrating structures like airplanes. So I visited with him there and met these folks and later on

responded to requests for proposals from Wright Patterson and received my first contract from the air force to do research work on laminated anisotropic plates. Anisotropic refers to plates that have different elastic properties in different directions. Well, that visit has a number of concomitants.

Birth of Pister Research Machine (PRM)

Pister: That project started a whole group of my graduate students in the early sixties. This is down stream from the sabbatical now. It led ultimately to my first industrial grant. I want to talk about that later on. I guess the best way to say it is that, it was the event or a couple of events that gave birth to what my students later called the PRM, the Pister Research Machine, because at one time in the early sixties, although this would be no record today, I had five Ph.D. students working with me. I think in the whole of my department at that time there might have been five other Ph.D. students. I guess I was the first one in my department to get a substantial amount of Department of Defense and industrial money to support students. So I had this big team who were all quartered in one of the old T-Buildings on the campus. That's where the term PRM was born. Members of this team all became major contributors to the University of California: Stanley Dong, now Professor Emeritus, UCLA; Leonard Herrmann, now Professor Emeritus, UCD; Fritz Mathiessen, formerly Associate Professor, UCLA and Engineer at USGS, Menlo Park (now deceased); Robert Taylor, now Professor Emeritus, UCB; Russell Westmann, now Professor Emeritus, UCLA.

LaBerge: Would they seek you out or did you seek them out?

Pister: No. In those days students sought the professor; I'll say largely because I had money to hire research assistants, but I had taught all of these kids in my graduate classes. So they knew the stuff that I was doing. So that experience at Caltech with Max Williams was a really very important event in my academic career, apart from the fact that I lived in the Athenaeum, which is a lovely place. Caltech is an idyllic campus. It's small. The Athenaeum dining room is a wonderful place to meet and talk to people. It just was my first experience, first of many, many experiences over my career that I visited and stayed at Caltech for different reasons that I'll talk about perhaps later on.

LaBerge: So that was just for two weeks.

Pister: Yes. Only for two weeks, but it had a disproportionate impact on my subsequent career because it got me started in this anisotropic plate business, which was the basis of much of my research for a while and in the field of viscoelasticity, which sustained my research group and gave rise to a substantial amount of research reported in archival publications.

LaBerge: I just want to say from a lay person, the way you explain that makes me almost understand it. So that's a high compliment. [laughter]

IUTAM Meeting, 1960

Pister: Thank you. There was another very important event in that same time period that I'd like to say something about too. This was the late summer and early fall of the year 1960. In the mid-1920s following World War I, there was a substantial interest led by a very well-known and extremely revered engineer scientist, Theodore von Karman. The interest was to patch up the shattered relationships that were a consequence of World War I and get people together with common interests in the field of theoretical and applied mechanics. So there was held in 1925, the first meeting of what became the International Union of Theoretical and Applied Mechanics, IUTAM. That conference comes around full circle because I did a special study for IUTAM just two years ago that I'd like to talk about at another point.

But that 1960 year was the tenth meeting of the International Union of Theoretical and Applied Mechanics, and it was held on Lago Maggiore in Stresa, Italy. This was the first opportunity I had to go to Europe although my wife Rita had been to Europe, as I had mentioned I think, in 1949.

LaBerge: For her grand tour.

Pister: On the grand tour, right. This was the first opportunity for me to go. I remember the period overlapped the beginning of the fall semester here, and my chairman at the time was a wonderful colleague, T.Y. Lin, who I'm sure has done an oral history. T.Y. was chairman, and I said, "Gee, T.Y., I want to go to this conference, but I'll be missing part of the semester." He said, "Have you been to Europe before?" I said, "No." He said, "Go ahead. You should go." So Rita and I had a three-week trip, the first part of which was the week at the conference at Stresa, which was a memorable event because I met Theodore von Karman for the first time. I met him subsequently once. He had been a teacher of my mentor Egor Popov when he was at Caltech. But I had studied his research and his writing as a graduate student. He was just an incredible figure in the history of engineering and applied science in the twentieth century, along with other prominent Hungarian emigres to the United States.

Incidentally I've just been reading Edward Teller's biography, and both Teller and von Karman are of Hungarian birth. Coincidentally, as a youth, Teller attended Minta School in Budapest. The person that directed that school was Maurice von Karman who was Theodore von Karman's father. I was so thrilled to read that, just last night. But it's such a coincidence because I have such enormous respect for von Karman.

But anyway, I met von Karman at that 1960 conference. I also met Professor Heinz Parkus who was at the Technical University of Vienna whose books I had studied, and I later visited Parkus in Vienna, and he visited here at Berkeley. So I had a long-time association with Heinz. The other thing that again had at the time unknown but significant consequences, I met a professor from Ireland from University College, Cork, by the name of Patrick Quinlan. He and I shared a common interest in the field of thin plates. I'll come back to Quinlan again. But we had a nice time. We sat down and had coffee together and talked about our research and thought no more about it at the time.

That 1960 year was an important one professionally because of the contacts that I made and the chance to meet Soviet engineers for the first time. There were a number of Soviets there. Incidentally when I came back to Berkeley, I was debriefed by the CIA or the FBI. They asked me all kinds of questions about, whom did I speak with? What did I talk about? Looking back at that, it was absolutely innocent stuff, but I'm sure that's in my file somewhere in Washington that I met these Soviets. Of course, I guess the reason they picked on me was I had at that time an active Q clearance under the Atomic Energy Commission, and so they were supersensitive to anybody with a Q clearance talking to Russians.

Birth of Mary Claire, 1958

LaBerge: Have we missed one child? The last child we mentioned was Jacinta.

Pister: Yes, we should go back and deal with family issues if that's appropriate. In the summer of 1958, I took a two-week active duty period in the navy to attend a special course in Idaho Falls. Idaho Falls is the site of a navy and civilian nuclear reactor test facility. The Idaho National Laboratory was a large area outside of Idaho Falls where Kaiser Engineers had a research reactor. Admiral Rickover had the training school to train officers and men for service on nuclear submarines. They had an active reactor there. They could train in a mock-up of a submarine. Phillips Oil had a big research facility there. Because of the navy's interest in nuclear propulsion, it was an opportunity for me to connect with my Livermore work two-weeks active duty there. So Rita went with me. We lived in Idaho Falls at a hotel, and I attended the course.

Why do I mention that in connection with my family? Well, this would've been late June or early July. Our daughter Mary Claire was born in August of 1958. So she accompanied us on the trip and fortunately was not premature, or we might have had a complicated trip.

LaBerge: Meaning Rita was pregnant.

Pister: Yes.

LaBerge: But Mary Claire wasn't born in Idaho.

Pister: No. No, we were there in late June or early July, and Mary Claire was born the next month. So she was flying around in her eighth month, which is not necessarily the greatest idea. But she did.

LaBerge: No. But then I want to know as a parent, who did you get to take care of the kids when you went for three weeks away and two weeks to Idaho?

Pister: This is a very important issue. We owe all of this to Rita's mother. Rita's mom was a wonderful babysitter. Mind you, Rita's mom was born in 1890. So she was in her seventies, and now as a person of that age, I marvel, and I'm anguished at what we dumped on her! But she was a willing babysitter. To give proper credit, our kids were really well-behaved children. From the beginning, because we had a flock of them in a

short time, we had a very organized home life, very organized, very structured, and part of this may be due to my navy training that we did things in a certain way, and you always did them this way, and then you wouldn't have to think about it. So the kids were well behaved. They loved their grandmother, and she loved them, and it worked out. But it was a huge responsibility that we placed on her. It didn't end at that 1960 trip. We'll talk more about that when we go to Ireland to what poor Grandma Olsen had to put up with on our trip to Ireland. Yes.

LaBerge: So those were two that I wanted to get--you have five children now.

Pister: Yes. We're up to five, and I think probably the next thing I might move to is the academic year '62-'63.

More Offers

LaBerge: Now before we do. You have a couple of things jotted down about the mechanics department at West Virginia, Arlington State College, Rutgers. What does that mean? Were those offers or--

Pister: These were just inquiries, none of these were outright offers. They were queries, would I be interested in being a candidate? To complete the list I noticed there was a department head at North Carolina State, department head at Iowa State, University of Houston and SUNY Stonybrook. These were places where for some reason I had come to their attention. I'd forgotten all of these until I read my old correspondence and saw these had all happened. At that time, I felt very secure at Berkeley. I was happy with what I was doing and why would I want to go somewhere else? That was basically the decision. Should I say something then about the '62-'63 year?

LaBerge: Absolutely.

Miller Institute for Basic Research in Science, 1962-1963

Pister: The founding of the Miller Institute for Basic Research in Science in, I guess, it would've been the late fifties or early sixties--I can't remember when that was founded--offered an opportunity for faculty to apply for a year's leave of absence and appointment in the institute.

LaBerge: Where would this institute be?

Pister: It's at Berkeley. It was a bequest from the Miller family, Mr. and Mrs. Adolf Sprague Miller, I think is the name. That bequest funded a number of institute research professors each year as well as research fellows now. So I wrote a proposal and sent it up through my chairman and dean, and lo and behold, I was successful, I think I was one of the early engineers to be given an appointment in the Institute for Basic Research in Science. So

that academic year '62-'63 gave me an opportunity to be free of all teaching and committee responsibilities. So I could work exclusively on my research.

It was a good thing, the flexibility in my program, because by unfortunate coincidence in the '62-'63 year my father was diagnosed with terminal cancer. I lost my father in April of 1963, leaving my mother to manage the property in Stockton that I've spoken about. So that was a very hard year for me but the flexibility of the appointment allowed me to deal with the family problems that I had plus dealing with my father and my mother.

Administrative Appointments: Graduate Students

Pister: Several other things happened in that year, later in the year, that are important from different perspectives. In April, I was appointed vice chairman of the Division of Structural Engineering and Structural Mechanics in Civil Engineering, vice chairman for graduate affairs. That was my first formal appointment to an administrative position in the university.

LaBerge: When you say appointed, are you consulted and you accept, or is it a command performance?

Pister: The appointments of chairmen and vice chairmen are usually a consequence of faculty being given the opportunity to recommend people. Then the administrative, in this case it would have been the department chairman, would have received that information, made his own evaluation and then decided whom to ask to accept the appointment. At that period certainly there was a sense of obligation to accept appointments like that. In our UC governance system if you're asked, I have found that most times people would accept. I don't think there was any course relief or anything like that but just something that had to be done. The main responsibility of that position was to deal with the problem of not so much recruiting but admitting graduate students into our program. We were in a very vigorous time of growth, building a strong graduate program in the early sixties. I don't remember whether the appointment was made actually by the dean or in the chancellor's office.

LaBerge: What about the Miller Institute? What would you do in your research?

Pister: I would have to say probably at that point I was very much involved in viscoelasticity. Doing the work that I started in the late fifties and working with--five of my students finishing their dissertations; there was an awful lot of ferment going on in my research program.

LaBerge: And then when you were there, did you keep up with your graduate students too?

Pister: Oh yes. I didn't leave. I was here. I met regularly with them. In fact, in one sense it was much easier because I didn't have any teaching or committee work to do. So I could work with them. It was fortunate because I had five dissertations to read. But they were great guys. I don't know if I mentioned of that group of five, they all served the University of California in one way or the other. Let's see, three went to UCLA. One went to Davis and

one to Berkeley. One became an associate dean. Three of them became department chairmen. One unfortunately died. So it was an incredible group of students. The other thing, each one of them retired before I did. [laughter]

LaBerge: You taught them very well.

Pister: So I went to their retirement dinners and--. Since we are talking about that, each one has been tremendous. Bob Taylor who has been my colleague here is a National Academy of Engineering member. He is my first National Academy of Engineering student. The one at Davis, Leonard Herrmann should have been an academy member, but his wife had a terminal illness, and he devoted a lot of his career to helping his wife who had MS. So he sacrificed I think appropriately for her rather than to enhance his research record. But he was a department chairman. He received the Cal Aggie Alumni Award of $25,000 one year for being the outstanding faculty member on their campus, and I was really touched by it. I was chancellor at Santa Cruz the night of the banquet, and I couldn't go. He was very praiseworthy of me in influencing his career. So I felt really good about that.

Then the UCLA faculty was Stanley Dong who was a department chairman in civil engineering and Russell Westmann who was associate dean of engineering and applied sciences at UCLA. The other was Ralph Mathiessen, who died at an early age. They were a fine group of students.

[11B]

Warsaw Conference on Shell Structures, 1963

Pister: In this same period, the early 1960s, another major milestone or critical event was my attendance in September of 1963 at a conference, International Association for Shell Structures, in Warsaw. I went over with colleagues from Berkeley, Paul Naghdi and [Chien] Hsu, who were colleagues from mechanical engineering. I don't know if we flew together, but at least we met in Copenhagen before we flew to Warsaw together. That was quite an experience. In'63 Warsaw was still not rebuilt from World War II. There was evidence all over the place of damage. The hotel we stayed in was a kind of a rundown middle class place, and the feeling from the time you landed in a kind of shabby old airport was that somebody was looking at you wherever you went.

Several things really influenced me apart from the technical part of the conference that we went to. The Polish people, the Polish engineers that I became acquainted with there, a number of them became lifelong friends, visited here in Berkeley or conferences in the United States or that I saw again in Europe at conferences. There were about three of them that I kept up a regular correspondence with and really enjoyed having met them and then being with them subsequently. They were really wonderful people. The other thing that I found really interesting was the extent to which the Catholicism of Poland was still very evident. No matter whether they were a Communist country or not, the churches were all open. I remember going to the church where Chopin's heart was said to be buried. A Polish friend took me there, and we went to see a number of the shrines in the city of Warsaw. So that was one memory. One particular Polish engineer told me

Ph.D. students in 1962 and 1995: (left to right) Professor Russell Westmann (UCLA), Professor Robert Taylor (UCB), Chancellor Karl Pister (UCSC), Professor Leonard Herrmann (UCD), Professor Stanley Dong (UCLA). [All are Professor Emeritus except Karl.]

about the kind of very active what you might call young Catholic underground movement of people that were very anxious for change in Poland. There are two other kind of comical things that happened during that visit to Warsaw then I'll come back to the--

LaBerge: The serious.

Pister: The serious academic--. I remember checking into my room. In those days I had an electric razor you had to plug in and spin to get it going. So I plugged the razor in and flipped this little wheel and the telephone rang. So I went and answered the telephone, and there was nobody there. I went back and flipped it again, and the telephone rang. So I did this about three or four times and I said, something's funny here. They're bugging me, these guys. There must be some secret here. So I finally figured out I had the doggoned thing plugged in to a telephone circuit instead of to the power line, and I was generating from flipping the thing, the little wheel on my razor generating a current that was ringing the phone.

I remember the bed in the room was just like a cot. It had a straw-like mattress on it. It was a very primitive experience from that standpoint. The other crazy thing was one night we had a buffet reception before we were supposed to eat. The buffet was set up, long table, typical thing, and the doors were closed. So you couldn't go in. I had no sense of what life in Eastern Europe must have been like at the time. But I soon learned because those doors were opened finally, and the Eastern Europeans from the Soviet republics swished into that room, and like the proverbial plague of locusts, they stripped that table, and the rest of us from the West were left with a bare table. It was a dramatic thing to see that happen. I couldn't believe it. Anyway, getting back, I gave a paper there--

LaBerge: On viscoelasticity?

Pister: Yes. Actually it was on the axisymmetric deformation of viscoelastic shells I think, something like that. It was published in the proceedings of that meeting. But to get back to the what-this-meant-to-me-in-my-career, on the way back from Warsaw I flew back to London, and then from London I flew to Cork. In Cork I visited the fellow I had met, Paddy Quinlan, at Stresa at the IUTAM conference. I spent several days with Quinlan at University College, Cork, and saw what he was doing. He was in the Department of Mathematical Physics there, which is like applied mechanics in this country. As the record shows and we'll come to that, that led ultimately to my applying for a Fulbright and going to University College, Cork, in 1965 after visiting Quinlan there.

Thomas Jaeger and SMiRT

Pister: I think the other thing I might want to say in this early 1960s period would be the visit that I had in early 1965 from a German professor by the name of Thomas Jaeger. Tom Jaeger was a very innovative and very energetic and dedicated one-track mind person who felt that the most important thing in the world for him to do was to organize and administer what became a biennial conference that would be focused on the mechanical design side of nuclear power reactors. It was called ultimately the SMiRT conference, and that stands for Structural Mechanics in Reactor Technology.

That particular period of history beginning in the sixties and going really clear up until well, this conference is still going. The heydey of it extended say to the early eighties and was the era of nuclear power as the savior of the world, at least the savior of the world's power problems. So Tom organized this activity and set up an international advisory committee to which I was appointed. I don't remember necessarily how he found me or how we became acquainted, but I along with a number of colleagues across the United States, some academics and others, industrial folks in the big power companies like Bechtel and others got involved as the U.S. representatives to this. Ultimately I was charged with, along with a colleague, developing the program for one of the main divisions of this conference.

We met every two years from the first conference in the early seventies for about a decade I would say, to the early eighties. Typically the conferences were changed from one place to another. The first was held in Berlin, in West Berlin of course, at that time. We returned to Berlin a number of times. The last one I attended was 1981 in Paris. As I said they're still going on, but I'm no longer associated with them. So that brought together a very interesting group of academic and industrial people focusing at the time on very important technical problems for that power industry. That enlarged my group of colleagues around the world because people came from every country, and we had some wonderful social occasions connected with these meetings. Rita attended a number of meetings with me. So I have to say that was another broadening influence on my professional career.

LaBerge: What kind of problems were you working on?

Pister: I was working basically on problems of designing the containment vessels for reactors, some problems to do with the reactor vessel itself or the fuel. They were largely problems involving the mechanical performance of the system under temperature and pressure loading, typically.

LaBerge: [Looking at notes] You have down here "correspondence," but I'm thinking that even right now, do you still correspond with people or even on email with what you're doing?

Pister: Yes. Much more limited now because--

LaBerge: It could be more because of email, too.

Pister: Certainly my colleagues who are active in research now use that extensively, when they're [having] technical correspondence including preparation of papers. The last few papers I wrote with students or colleagues were done using email. Now any time I have to do any type of collaborative work with anyone, I typically use email. That's been a wonderful catalyst for production of research work. But that time was before email, and we had to use the mail, and that's the end of that.

I haven't really been involved with any of these folks in any serious way since really about 1981, when I gave up my active role in the SMiRT conferences. But at the time, for that decade from '71 until '81 it was a very major effort in my professional life. Let's see, maybe we're just about at a point where--

LaBerge: Is this a stopping point?

Pister: It's a break because the next thing I'd like to talk about, I think, would be the sabbatical year in Ireland.

Family Health and Birth of Kris

LaBerge: Now we haven't covered Kris' birth or Rita's surgery, if you wanted.

Pister: Oh, why don't we put that in, sure. Then that pretty well finishes up until 1965.

LaBerge: You told me that your dad died in April--

Pister: In April of '63. But backing up from that, partly perhaps as a consequence of the trip that Rita and I took in September of 1960, and then partly just because of, well, I could call them natural causes, Rita became quite ill. She had suffered a kind of a, from her early teens, a serious illness. She had ulcerative colitis, and it really got out of control in the fall and winter of 1960. Between '60 and ultimately the end of '61, she was hospitalized on several occasions and spent quite a bit of time in bed and was really not in good shape at all as a consequence of this illness.

So in January of '62, she had a serious surgery to correct the ulcerative colitis and had a very difficult recovery from the surgery at that time. She was hospitalized in San Francisco for weeks before we were able to bring her home. Again I guess I had forgotten this. That was another blessing of my Miller appointment that I had freedom because we had five children at the time. It was a real responsibility to keep the kids together and keep the house going and to worry about my wife.

LaBerge: How did you, did you hire somebody?

Pister: No.

LaBerge: No. You did it yourself.

Pister: Yes. And my mother-in-law helped us. But in looking back--

LaBerge: You wonder how you did it.

Pister: I don't know how I did it. We had some wonderful friends in our parish, too, that helped out with the children, they brought me things and just were there for moral support. But she had surgery, which ultimately, thanks be to God, really changed her life. The recovery period was extremely difficult.

LaBerge: It would be interesting to hear what your kids remember about that.

Pister: Yes. It would be. I haven't talked to them a lot about that. So that was in January, it was January 15, '62 that she had surgery in San Francisco at the Stanford Lane Hospital as it was called at that time. She had a wonderful surgeon and terrific internal medicine doctor, Dwight Wilbur whose father was Ray Lyman Wilbur, president of Stanford. He was a

tremendous bit of stability for us because he was such a respected and knowledgeable physician, and he took care of her through all of that. Anyway, so that was January 15, which was my brother's birthday. That's how I can remember it, and I reminded Rita this year it was her 40th anniversary.

LaBerge: Isn't that amazing?

Pister: Fortieth anniversary. So she had forty more years of life that she might not have had, had she been born in an earlier century. By April of that year she felt well enough that we took a trip to Seattle and went to the Seattle World's Fair. I gave a paper at the University of Washington to the aeronautical engineering department up there and enjoyed our first trip since her surgery. My parents came down and took care of the children during that period, the few days we were away. See that's '62. Then in December of '63, and this will complete everything up until 1965, in December of '63 our last child was born, Kris on December 26, on the Feast of Steven. So one of his names is Stefan. We really saw Kris as a replacement of my father.

LaBerge: You had some awful years in there.

Pister: They were really--we had a lot of support. In the years before her surgery, Rita had a physician in Oakland that I really would like to mention, too. His name was Bob Slattery. He's long since retired, but he's still living. Just to mention there are such people in the world, Bob was in practice in Oakland, but he would drive out to visit Rita in--

LaBerge: In Lafayette.

Pister: In Lafayette, to check her out and make decisions about what to do. Then on top of that, I still remember when we got the bill, it was a huge bill for the time. But he gave us a courtesy discount on the bill even after driving out. He was a graduate of the Creighton School of Medicine, a real decent man. Anyway, so we survived that and Kris arrived. But Kris was a problem because of Rita's surgery she had a deficiency in Vitamin K, and Vitamin K is an important element in coagulation, and poor Kris had a bleeding problem as a result of his mom, and that had to be corrected, but thank God that worked out.

LaBerge: That's a wonderful ending of the story. This is really off the subject, but does he realize what a magic person he is? Oh, I'm sorry.

Pister: That's all right. [with emotion]

LaBerge: He really is, isn't he?

Pister: Yes. Golly, I just get too emotional.

LaBerge: It's wonderful. Wouldn't that be awful if you didn't care?

Family, Thanksgiving 1964

Back (left to right): Kris, Karl, Anita, Therese, Karl Francis, Rita. Front (left to right): Mary Claire, Jacinta

Impact of V-12 Program

[Interview 7: February 12, 2002] ## [12A]

LaBerge: Today we wanted to add something more about the V-12 program.

Pister: The impact of the Navy V-12 program is a splendid example of social engineering really. It was designed to create an appropriate supply of naval officers for what the navy thought would be a much longer war than what actually happened. So the pipeline was full of potential officers, and many of them of course were commissioned and went on to active duty. But I was speaking of the V-12 program particularly at Berkeley. In addition to people like Dick Heggie and Roy Brophy, who are well-known figures in the University of California family, there were some splendid examples of young men who without that program probably would never have attended college, let alone become professional people in our nation. I remember one example was a naval medical corpsman who had been on Guadalcanal as a medical corpsman for the marine corps. I remember now his name was Ed Slaugh, and Ed came into the program and did pre-med and actually became a practicing physician and ultimately practiced out in the Hayward area to the best of my knowledge.

Another example, and I won't be able to remember his name, a fellow that came from the fleet, that struggled at first to get through the rigors of a college program at Berkeley, ultimately became a credentialed teacher and became superintendent of the schools in Richmond in later years. Those were just two random examples.

The other thing I'd like to mention is the impact that this V-12 program had on diversity and integration in our society. When the program was first designed, according to the history that I read about this program, there was a question as to the pool of young men that would be eligible for the program. Buried in that question, of course, was well, what about non-Caucasian people? Are they going to be admitted to the program? The services at the beginning of World War II were very much segregated. If you were an African American, you had very, very limited opportunities for petty officer rating of any kind. You became a steward or you were a cook or a baker, but nothing else. Well, at any rate, my reading of the history was that that question was taken clear to President Roosevelt who said, to his credit, that the program will be open to all young men who are qualified.

The particular instance that's, I think, of interest is, there was a young man whose last name was Grassley. I can't recall his first name. Grassley was from the South and was sent to a southern school, but that did not work because of the segregation at that school. So he was ultimately transferred to the University of Southern California, which had a V-12 unit. So he went through the V-12 program at USC during the war, was commissioned in the navy, became I believe a regular naval officer and rose to the rank of rear admiral in the navy. The first African American to become a flag rank officer in the navy. So that really speaks well for the impact of the program.

VI. SABBATICAL YEAR IN IRELAND, 1965-1966

Professor Patrick Quinlan's Offer and Fulbright Lectureship

LaBerge: Well, today is February 12, 2002. We were going to cover the sabbatical in Ireland and travels in Europe. So tell me how the sabbatical came about.

Pister: Right. Let's go back and recall that. In 1960 I met Professor Paddy Quinlan, who is professor of mathematical physics at University College, Cork, Ireland. I visited Paddy in Cork in 1963 on my return from the conference that I attended in Warsaw on shell structures. During that visit we talked about, I think he encouraged me to think about coming to spend a sabbatical in Ireland. Subsequently, we found that there was an opportunity for a Fulbright lectureship in Ireland. I applied to the Fulbright program and was accepted as a Fulbright lecturer at University College, Cork, Ireland. Ireland has three national universities. It's a National University of Ireland. They're at Cork, Dublin and Galway. Actually there's a fourth at Maynooth, but that's a seminary. So there are four National University campuses. The most well-known university outside the National University, of course, is Trinity College, Dublin. I had a chance to visit and I'll talk about that.

We received the invitation, which I accepted, and we made plans then to travel to Cork in September of 1965. At that time Kris was not yet two years old, and my oldest son would have been fourteen. The girls were in between Kris and my oldest son. I don't remember exactly how this worked out, but we decided that my mother-in-law, who at the time would have been, let me see, seventy-five years old, would go with us.

LaBerge: Was she a widow?

Pister: She was, at that point, yes, she was a widow. My mother-in-law's maiden name was Maxwell, and she was Scottish Irish. Her grandmother as well as her mother had come from Ireland during the terrible years, the famine and the dreadful English occupation.

Mishaps in Traveling

Pister: So I arranged a charter flight for my family. It was an ASUC charter flight for my family going from San Francisco. The addition of my mother-in-law was a later event, because she wasn't on the charter flight. So we had to make some adjustments. I bought a separate ticket for my mother-in-law and one of our daughters, Anita, who is our second daughter, and they flew separately on a Pan Am flight to London. We flew from San Francisco to England on a separate flight, essentially the same day, but on a separate flight. Well, that was just the beginning of our troubles. Of course, we'd had to go back and get separate passports because Anita was on the family passport.

They went ahead, and we had a hotel reserved at Heathrow. I still remember the name of the hotel, the Ariel Hotel at Heathrow. Well, our flight went, I guess, as well as could be expected for a charter flight except the plane had just come back to Travis Air Force Base, I believe, from Vietnam, and there was some problem with it. So we flew to Los Angeles first. Someone said there are bulletholes in it, but I can't believe that would have been the case. So we had to fly to Los Angeles. I think we changed planes in Los Angeles before we flew to England. Well, alas, even though I was already a full professor, my knowledge of geography was somewhat less than it should have been. I didn't realize that there were two international airports in London, Heathrow and Gatwick. So our plane flew to Gatwick, which was quite a surprise to land in London and find that we were nowhere near Heathrow.

Here we were--I've forgotten, I hadn't remembered until just now that to get to the airport, by the way, in San Francisco, with the eight of us or seven of us because my daughter Anita was not with us, there were seven of us with twenty-three bags. We'd already sent ahead by ship a lot of other gear, the camping gear because we planned to camp in Europe. So my colleague Joe Penzien, about a hundred yards from us in Lafayette, was kind enough to haul us to the airport and let us off. There must have been two cars. I can't remember who the other person was.[1] At any rate, he took part of us and we got to the airport. [laughter]

So we arrived in Gatwick in the middle of the night with five exhausted children, two exhausted parents and twenty-three bags, and I don't remember how this came about. There was another family that had to get to Heathrow from Gatwick. Somehow we were given the opportunity to get in a van of some kind that was associated with the airport, and they jammed in all of us, I don't know how many people were in the other family, with all our bags. They hauled us to Heathrow and to our hotel.

LaBerge: And did your mother-in-law and Anita fly to Heathrow?

Pister: Yes, they were already in the hotel. So we arrived there and deposited ourselves in, I think, the five kids had one room, and Rita and I had a room, and Grandma and Anita had another room. So we were all there. That was just the beginning of the trouble. Rita couldn't get warm for the entire night, and I had to keep calling up for more heat or more blankets. She was, I guess, exhausted, and I don't think she slept much that night. Then

1.It was Margarete Crosgrove, who in the next summer joined us during our camping trip, and her mother.

we got up the next morning because we had to fly from Heathrow over to Cork. I remember there was a dreadful amount of activity getting everybody together again and ready to go out to another building to fly to Cork.

At the last moment, Mary Claire got sick to her stomach--just was a dreadful situation--all over the floor, and we just had to take off and leave the whole thing. Went to the airport, Mary Claire continued to get sick. She threw up on her grandmother's coat, but we finally arrived at the airport in Cork. Well, this sounds like a travelogue, but as one sometimes says, "You think that was bad; wait until you hear this." Well, we were met by Professor Quinlan who had a typical Irish car, which was far too small for the eight of us, nine of us now. I can't remember how we got downtown. But we managed to get to a hotel somewhere, and we had lunch in the dining room, I guess, it was lunchtime.

Changing Living Quarters for a Large Family

Pister: Then we were taken out to the place he had rented for us. We had left it up to him. He said, "Oh, not a problem." We learned that this kind of expression of "everything will work out fine," was a characteristic of the Irish. They tend to be very optimistic in the face of uncertainty or indecision. So he took us to this place that he had secured for us. It was called Black Rock, Eastcliffe, Cork, Ireland. It was right on the Lee River, the River Lee as they would say in Ireland. So it was a lovely place that must've been built sometime in the eighteenth century. It was what the Irish called a semi-detached. It wasn't a row house. There were two houses side by side joined by a common wall. So there was another family living there. Well, it was a child's dream. It was a four-story house with a lovely garden, a big garden in the back. It had been owned by a woman who had been a surgeon. So it was a fairly nice place. It was completely furnished, not for a family with six kids, and as I said, four stories.

Well, the downside was that the surgeon obviously never went near her kitchen. She had what the Irish would call "slavies" to do that. So the kitchen was an absolute and utter disaster. It had a hot water heater that you had to fire with coal to heat the water. It had an antiquated stove. The sink was something like you might expect to find in a garden shed where the water ran down the sink and into a hole in the floor. There was an old-fashioned wringer-type washing machine in a dark and damp basement. As one moved upstairs to the upper floors, there was a bathtub with a drain in it that was so large that Rita was afraid the children might be sucked down the drain. There was a sign on the wall, "Don't let the water out too rapidly because it might knock the roof tiles off." [laughter] Sure enough, the bathtub drained onto the roof.

I haven't yet touched the heating arrangement. There was no heat in the house save for a small peat-fired fireplace in each of the major rooms, so that if you wanted any heat, you'd have to stoke them with peat to create small fires. We purchased electric heaters, which the Irish called electric fires. The first time we plugged them in, we blew all of the fuses in the house on those circuits. And subsequently we replaced those with heavier fuses. We tripped a circuit breaker out on the pole on the street. So the house just simply wasn't geared up for any kind of electrical load. We sent, as I said, four boxes over with things that we couldn't pack in twenty-three suitcases. The boxes were delivered to us,

and fortunately, I only opened one box. They were delivered to us by a drayman who had a wagon pulled by a horse. Ireland in the 1960s was still very much an eighteenth-century experience, for us at least. Understandably my wife, and with not much persuasion I, recognized that this was not going to work.

LaBerge: For six months or whatever.

Pister: For a year.

LaBerge: For a year! Oh wow.

Pister: Nine months. So, Germaine, we found a very, very nice person, not surprisingly, whose first name was Mary, but I can't remember her last name now, who was a solicitor, which as you know is the British/Irish term for a lawyer, attorney. Subsequently, she was very helpful to us. But we started walking around one of the main streets where there were what were called estate agents or realtors, and I think strictly by an act of God, we found an advertisement for a place that looked promising. So we found a home that had been built in 1948, which at that time was fairly modern. The first thing that struck us was that it had central heat. By that I mean it had an oil-fired, forced air furnace with outlets in every room. That alone was enough to get us interested. So we rented that place.

It was absolutely barren inside. The kitchen, essentially was bare; when they took the stove and things out, they just cut the pipes off. The sink was there, but nothing else. So we had to buy a refrigerator and a stove and had to essentially furnish the place initially with our camping equipment. We had four folding cots for the kids. They all had their sleeping bags. So our stuff was moved from the Eastcliffe, Black Rock place to this new place, which I might add had the lovely name Saint Martin's Laburnum Park, Bishop's Town, Cork, Ireland. So that's the way the mail was delivered, Saint Martin's, Laburnum Park. It was in a nice neighborhood, very close to a school, which I'll talk about later. So that all went well.

We bought the necessary appliances, and I went to a lumberyard and got a bunch of lumber ordered and a saw and a hammer, a square and nails and things and had that delivered, again by a horse and wagon. I built a dining room table out of a big sheet of plywood with four-by-four legs. We bought the chairs, of course. I built a couch for the living room which Rita made a pad and bolsters for, and we had beds delivered. I built a headboard. I did all this building out in a garage that had one lightbulb from the ceiling with no heat, freezing cold, damp. But anyway, so we built all this stuff and made the place habitable. There were no closets. So I had to construct a couple of poles and put the wire across to hang stuff on. [laughter]

LaBerge: Had you done building before?

Pister: Oh yes. I think I might have mentioned earlier on, my father was an expert cabinet maker and knew how to do building, and I learned from him how to do these things. I'd done stuff in Lafayette before we left, in our own home. So it was not a challenge. The greatest surprise was the natives seeing this American professor do all this stuff. My colleague, Professor Quinlan, couldn't even boil water basically. It was a totally different--if you were an Irish working man, you did these things, but a professor would never do anything

like that. So that was a real shock that I would do these things. So we made the place halfway decent and Grandma lived downstairs, and we all lived upstairs.

LaBerge: How long had you stayed in the first place?

Pister: About two weeks. Now we have to go back to the solicitor. Understandably, the person that we had rented from--actually we were supposed to have leased the first place, by the grace of God we had never signed the lease. She should never have let us move in without signing the lease, but we did. Our solicitor was very helpful, and she worked with the solicitor for the owner of the place who was a young woman who had lost her mother. She wanted to rent the place so she could go to the University of Dublin, University College, and that was a big disappointment for her, and I felt bad for her, but on the other hand there was no choice.

LaBerge: It wasn't going to work.

Pister: So we paid some kind of damages to her for early departure, but we had to do it. There was no other way. So we established a way of living. We had our milk delivered, and we ultimately used to have our groceries delivered. There was just a totally different system--we had our meat delivered. The fellow would ride up on a bicycle with a basket on the front delivering whatever meat my wife had ordered. It was just a totally different culture. We never succeeded in getting much help in the house (though, we did have a cleaning woman four hours a week) which Paddy had promised my wife, because the society was beginning to change, and it was becoming more difficult to get domestic help, interestingly enough.

Schools for the Pister Children

Pister: Let me say something about the schools. Our daughters, the three younger daughters went to the parish school. We were in a parish whose name was Descent of the Holy Ghost. The bishop of Cork, Cornelius Lucy, at the time, had a great devotion to the rosary. So he had built a church for every decade of the rosary, and we were in the Descent of the Holy Ghost on the Apostles' Church. It was one big cold building that was never heated. The whole experience, that's another chapter, was not that great. The national school system in Ireland is staffed by religious. The Sisters of Mercy were the teachers in the school. My wife had gone as a young woman to Sisters of Mercy High School in Grass Valley. Mother Catherine Macauley who founded the Mercies, that particular group of Mercies at least, was well known to her. So this was fine with her. The kids were very well received, the three girls. Tracy, our oldest daughter, went to Mercy College because she was already in high school. It was a companion school also taught by the Sisters of Mercy. I might add by the way we are still in touch with the principal of that school, Sister Mary Pius.

LaBerge: You still are today?

Pister: Yes. Still are today. She's old and infirm now, but we've kept in touch with the sisters over the years because they were very good to our girls, and they, our daughters, learned.

They had a period of Irish every day. So they learned to speak and to understand the rudiments of Irish. They learned a lot of Irish poetry, took part in Irish step dancing. They had costumes made. Actually one of our daughters, Jacinta, was extremely talented in this area, and she won an Irish step dancing contest the year we were there. They really enjoyed that part.

Our oldest son, Karl Francis, went to a school on the other side of Cork. He had to take a bus every day. I'm trying to think. I think it was the Christian Brothers school on the other side of Cork. He had a less pleasant experience there. He was not interested in sports, and they played rugby or soccer, football. He wasn't interested in that. The most interesting thing is that he was quite unaccustomed to the kind of discipline that was still in evidence in Irish schools. For example, if a student did something wrong in the eyes of the teacher, the student was marched to the front of the class and whacked on the hands with a ruler. Well, our son thought that was rather barbaric, and he told the brother that "I'm surprised that you do that. We do not do that in the United States." To his credit he changed, at least in that brother's class, he changed the practice. When Francis was there, there was no more corporal punishment in the classroom.

LaBerge: Well, I'll be darned, because you can just see the teacher's hackles going up and saying, well--

Pister: So that was an interesting experience. Of course, our baby Kris was still less than two. So he stayed at home with Mom and Grandma. Well, I should at this point before turning to the purpose of my sabbatical--note that all of this clearly along with the culture change affects one's ability to pursue any kind of scholarly work.

LaBerge: Absolutely.

Pister: I couldn't just walk out on my family and say, "You fix it, family." I should say early on, too, we had a rental car for the first few weeks. But prior to going to Ireland, on the basis of conversations that I had with a colleague in engineering, Professor Irv Fatt, who alas just died a few years ago, Irv had done a sabbatical in London with his spouse. While there he purchased and drove around England and the continent a vehicle called a Commer Bluebird. The Commer Bluebird was an early version of a small recreational vehicle. It was built on a Commer, it's a well-known truck chassis in England.

Delivery of the Commer Bluebird in England

[12B]

LaBerge: Okay. So you're talking about this professor had gotten his Commer.

Pister: When I told him we were going to Ireland and we wanted to do camping, he shared, "Well, you should consider this Bluebird, this Commer Bluebird." He talked about it, and I think he might even have shown me a picture of it, and he gave me the information. So I wrote to the distributor in London, and they sent me all the details about it, and it looked like a great idea. It was a very boxy kind of car, truck really. It's a truck. It had a tiny little

engine. I think it was a 1500 or 1600 CC engine, four cylinder, and it was in the cab. The engine was in the cab in a big metal container. It had windows down the sides, but it had a little closet, and it had a sink and a gas-electric refrigerator that you could use on 12 volts or on propane. It had a bed that opened up so that it would be a double bed, and then there was a bunk across the top, and there was a kitchen table in the front part that you could turn into a bed. So in theory you could sleep all of us in that van if necessary. We did that on occasion.

So this looked like a great idea, so I prepurchased the Commer van when I was still here. I think it was about $3,200 or something like that in 1965. Well, fine. We were here in Cork. So I had to fly to London to pick this van up. I did that, after we'd been there about two weeks, I think. I flew from Cork back to Heathrow and took the train into downtown London. It was at Earl's Court, I think, that district of London. So I appeared there one day and identified myself to the, what the British called the managing director, and he said, "Well, here's your van." By the way, I had it configured with a left-hand drive so that I'd feel comfortable and I had to drive of course on the left-hand side of the road. But it was designed, it was built with U.S. specs, so I could export it from England to the United States, which we did. Anyway he said, "Well, there it is." I said, "Gosh. I'd like to have a little bit of practice here, a little bit of training before we--." Okay, so hop in. I hopped in, not the driver's seat but the passenger's front seat, and we drove around the block in London. He said, "Okay, that's it."

I can't remember, it was sometime in the late afternoon by the time I was ready to leave London. It wasn't dark yet. I had previously made an arrangement to drive to what would have been, I guess it was Holyhead in Wales. That's the ferry spot that goes to Dublin. Anyway, I had to drive across England to Wales to take the ferry from Wales to Dublin because that was a passenger ferry that you could just drive on. Okay. I had absolutely no concept of the distance or the driving time. I might have known the distance, I had a somewhat vague notion of which motorways I had to take--well, just getting out of London by itself in a left-hand drive car in a totally new environment was quite a challenge. So I finally got out of London and on my way. I think it was in Birmingham on the way. It was now nighttime. I got lost, and I pulled into a petrol station there and asked the fellow, how do I get to Wales to Holyhead, Wales. He said, "Oh, you have to take the I-5." I said, "Fine." I went searching.

I don't know how long I searched for the I-5 until finally I realized what he said was A-5 because A was I in his very strong accent. So I finally got on the A-5 and this was maybe midnight or something like that. I drove up to a place along the way that was within driving distance of the ferry line at Holyhead. I was exhausted at this point. So I finally pulled into a place where there was a hotel and went in, and I don't remember what time it was, maybe one or two at night, and got a room and told the guy to wake me at something like four o'clock. I just needed a couple of hours of sleep. It was too cold to sleep in that blasted truck because it was already late fall and it was cool. So he woke me, and I took off again. I finally got to the ferryhead, and I was the last car to get on. They were just ready to close the gate. I made it across to Dublin and drove from Dublin down to Cork, which is about a three-hour drive, without incident as I remember, and pulled into our driveway in Saint Martin's, and there I was honking the horn, and my family came out to see the new van, which they viewed with much surprise.

We got the van and subsequently, we did some reconfiguring inside and built some shelves and cabinets so that we could store stuff and all. We did some modifications to conform it more to the way we wanted to use it. We had sent over our camping gear. So we had a tent for the kids and four folding cots that stacked up, one on top of the other, two and two, and sleeping bags and air mattresses and all that. That was all stowed under the seat. So we configured it. I'll come back to that later in the spring when we went on our first big trip. We had two wonderful trips, three trips actually.

LaBerge: But you also used that as a car.

Pister: That was my car. Yes.

LaBerge: So there were seats in it.

Pister: There were benches along the side. There were two seats in the front for my wife and myself and then benches along the sides where the kids sat and played games and drew and everything else. And a little closet in the back where we kept our clothes and a chemical toilet, an essential. Anyway, we're finally now pretty well configured. Kids were okay in school, and we had our car. So I could get busy with my work at the college.

Settling into Life at University College, Cork

LaBerge: How much time did you have between getting there and needing to teach?

Pister: I had no teaching responsibilities at that point. I was just basically doing my own reading, just doing research essentially. So I shared an office with Professor Quinlan and his secretary, who was a chain smoker, who has since unfortunately gone to her reward. But Paddy was teaching, I guess, one course at that time and doing research that I had some interest in. But I, basically, spent my time reading and getting well getting acquainted with the college faculty. The college had a wonderful atmosphere, it was a small campus. I don't remember how many students. But the faculty met every morning for tea in the Commons Room. For example, I became acquainted with the professor of Celtic history and the people in mathematics. I struck up a really good friendship with Vincent Hart who was a lecturer in mathematics. He's since moved to Brisbane and is a professor of mathematics at Brisbane. We visited him and his wife when we cruised to Australia once. So we made some wonderful friends there who were interested in helping us. There was a professor of physics, Frank Fahey, and his wife. Frank had studied at the University of Chicago and did his Ph.D. there. So most of them knew the United States one way or the other. They were quite open to us who were called by the Irish "the Americans." [says with Irish accent that doesn't transcribe] [laughter]

LaBerge: You're good at that.

Pister: I should say something about that too. The people in the neighborhood, and I think the schools, were quite apprehensive because their understanding of life in our country was based largely on what they had heard from relatives or friends who had gone to the U.S. or from television. At that time there was only one Irish station, Teilifis Eireann, and had

a very strange program. It didn't start until six o'clock in the evening. By the way, it started with a priest coming on and saying the rosary. Our two-year-old [Kris] at one point watching the television said to his mother, "Mommy, I don't like that commercial."

LaBerge: That was the beginning of your troubles.

Pister: That was the beginning of our troubles. [laughter] You're right. Anyway. So Teilifis Eireann was the only thing we could look at. I've lost track of where I was now.

LaBerge: You were telling me about their--

Pister: Oh yes. Their sense [of us] and the program that most of them watched was Dallas. Do you remember Dallas?

LaBerge: Yes.

Pister: How untypical of American life Dallas was. Unfortunately, that's how many gauged Americans. So they were quite worried about the disruptive influence of this family from America. Well, I think they found that our kids were well behaved, and we were church-going Catholics just as they were, and eventually our kids made a lot of friends. We had lived pretty much in the suburbs [in America] so living in the city and having kids right next door was quite a new experience for them, and they had a lot of fun.

Anyway, I should get back to my life at the college. It was a wonderful experience for me because I had time to do a lot of study, and I had a wonderful book allowance that the Fulbright people gave me. I was able to get a set of books, which I still have today and which were instrumental in helping me shape my research programs when I came back to the United States.

LaBerge: What were the books?

Pister: Well, two of the most important ones were very expensive books in the series called the *Handbook of Physics, Handbuch der Physik* in German.

LaBerge: Did you read it in German?

Pister: No, these particular volumes were published in English.

LaBerge: But originally in German.

Pister: The *Handbuch der Physik* series was originally--it was a Springer-Verläg who was a famous German publishing firm, but these two were published in English. They were written by people from the United States. No, I didn't have to read much in German in the sixties. By the sixties the Germans were beginning to write pretty much in English. In the forties and fifties clearly you had to do a lot of reading in German in my field. That gradually changed. By the sixties that was not the case anymore. So anyway I did a lot of reading, and as I recall I don't think I did much in the way of creating any new research programs, but I was really resetting myself to continue when I got back to the United States. So from that standpoint it was a very broadening experience as well as an opportunity to go deeper into the science of the work that I was to do later on.

LaBerge: And is this viscoelasticity, or what is it?

Pister: Yes. Partly viscoelasticity, but more generally just the thermo-mechanical behavior of materials. I had a chance to do a lot of reading in the applied mathematics that's necessary to understand modeling the kinds of problems that I became interested in.

LaBerge: Now, can I ask you about your research and just engineering in general. Is this something that you talk about with your wife? Does she understand what you do?

Pister: Not really. No, I don't think that's anything we ever spent much time on. Certainly, she was interested in the fact that I was interested or if I was having success or not. But on the other hand, all the other aspects of my work, working with people, working with issues that were not specific to the technical part of my work, we spoke a lot about those things, particularly during the times that I had administrative responsibilities. We'll talk more about that when she was, for lack of a better term, Mrs. Dean, and then later when she was associate to the chancellor when I was chancellor. During those periods she was absolutely essential to the success and completion of my responsibilities.

Mathematical Sciences Northwest, Inc. and John Argyris

Pister: I'm trying to think now what I should mention about things in Ireland. We took some wonderful weekend trips or just day trips on weekends in Ireland, looking at the countryside and getting acquainted with things. I should back off and talk about what happened in Christmastime 1965 and January '66 to stay in proper chronology. I guess I haven't connected this yet to the affiliation that I was involved in before I went to Ireland. I'm trying to look, I guess I haven't written that down anywhere. [looking at notes] As a consequence of my meeting Max Williams. Do you remember Max?

LaBerge: Yes.

Pister: He was professor at Caltech, somewhere in the early sixties this would've been, I became affiliated with a consulting corporation that Max had formed at Caltech called Pacific Southwest Engineers, I think was the name of it. But that's less important because Max unfortunately was separated from his wife at about that time. His interest in the corporation waned, because he left Caltech and went to Utah as dean of engineering. The corporation leadership was picked up by a colleague whose name was John Bollard who at the time was at the University of Washington. He became acquainted with Max at Caltech when he was on a sabbatical year, I believe.

John picked up the reins for the corporation whose name was changed to Mathematical Sciences Northwest, MSNW, Inc. It became headquartered in Seattle. I became loosely affiliated with Mathematical Sciences Northwest as a consultant, and I did intermittent consulting with them on problems in the solid rocket propulsion area, which I'd started earlier. As a consequence of that affiliation, to connect now to Ireland, we were looking at the possibility of connecting with a very, very well-known and accomplished professor of aerospace engineering at the University of Stuttgart, a gentleman by the name of John Argyris.

LaBerge: You have his name on your chronology.

Pister: I do, yes. John was one of the early pioneers of a method of structural and stress analysis called the finite element method. He developed a very sophisticated computer-based implementation of the finite element method. Although interestingly enough at that time, he did not call it the finite element method. He called it the matrix displacement method, and for those who have a technical interest, this tension between the invention of the term in the United States, finite element method and his invention almost simultaneously in Europe of the matrix displacement method--that was a source of great tension until finally he lost. That name disappeared.

I mention this because the finite element method is typically credited to one of my Berkeley colleagues, Ray Clough, and some colleagues of his from the Boeing company where I think it was the summer of 1955, they wrote the paper that introduced this methodology, which I should add has changed dramatically the way computations are made for field problems in a whole variety of areas. Mathematical Sciences was interested in a possible joint venture with John Argyris to use his program, which was called Aska. I knew Argyris' name. I had never met him.

So on the strength of a potential collaboration, Math Sciences proposed since I was already in Ireland, that I should go to Stuttgart and meet John Argyris and see whether or not we could work together. Well, this is essentially just after Christmas of 1965, on the strength of that Rita and I decided well, if we're going to go to Stuttgart, we might as well go on to Vienna and on to Athens. As along as we're there, why not go over to Tel Aviv and just have a trip to the Middle East while we're there, leaving Grandma with the six children at home in Saint Martin's. [laughter] In retrospect it was just, I'm just amazed that we did that. Again, I guess to calibrate this, I'd say this is what happens when you're only forty years old.

LaBerge: That's right. You don't think about the potential.

Working Trip to Stuttgart, Athens, and Tel Aviv, 1966

Pister: So Rita and I booked a trip to Tel Aviv and return with stops at Stuttgart, Vienna, and Athens. This is not just a pleasure trip. Each of these has connections, as you'll see, to my professional life as well. So we flew to Stuttgart and met John Argyris, who is an incredibly talented charming individual. He's married to a Swedish woman, Ingalisa Argyris. He was born in Greece but educated in Germany and in England. They're both multi-lingual, but John must command five or six languages. I've seen him in conversations in a mixed group in Europe where he will talk to different people in different languages in the same group, just like that without missing a beat. He's a brilliant man. He came to Germany after the war, and was given the senior professorship at Stuttgart to build an institute for aerospace engineering. He built a magnificent building there, and he had great political ability, and the minister of education in the section of Germany, Baden-Württemberg, which is where Stuttgart is, is a good friend of his. He successfully leveraged his position to found really a world center of research and teaching.

So it was interesting to meet him, and we went--at that time he was living up in a small house that was a cottage in which the Prince of Württemberg used to keep one of his many mistresses. The castle was named "Schloss Solitude." But anyway, it was a nice little place where he lived with his wife and a beautiful collection of Swedish glass, I might add. So we enjoyed meeting them socially, and certainly I think had a good contact with him to discuss the possible merger, which never occurred by the way, but at least I met John Argyris and he met me. So we somehow really were attracted to one another, and that leads later on to my two sabbaticals in Stuttgart at his institute, and we'll talk about those later.

The other thing in that meeting in Stuttgart was that when he learned that we were going to Athens, he called or wired a colleague of his at the technical university in Athens to meet us and to take us around Athens, although we were only going to be there a short time.

In the meantime we flew to Vienna where we had the opportunity to become reacquainted with Professor Heinz Parkus and his wife. You remember I mentioned Parkus whom I met in 1960. We had a wonderful dinner with them. She gave us the recipe, and I think even a box of a particularly special dessert, and I can't think of it now. It's kind of like baked Alaska, but it's a very Viennese-type dessert, and I still remember Margreta Parkus and that evening. Heinz has since died, but I believe she's still living. But anyway we had a nice time in Vienna, apart from the fact that this was the Feast of the Epiphany because on the doorways you could see the chalk marks that are typical in some cultures, the three kings marked their presence on the doors. But it was cold as the dickens there. We were right behind Saint Peter's Church, and I remember we never got warm that entire time in that hotel. But the high point was going to Mass in Stephansdom, which is a cathedral, Saint Stephen's Cathedral in Vienna, and being privileged to hear a Mass in which a symphony orchestra played in the choir loft during the Mass. It was really a remarkable experience to attend Mass to have that magnificent music as part of the Mass.

So we then went to Athens where we met Professor Theophanopolis, who graciously drove us around Athens. Interestingly enough, this was early in January still, there was a snowfall in Athens. So we visited the Acropolis and the Parthenon with snow on the ground. He showed us around, and we had really a short but a lovely time in Athens and visited and had lunch with him in his home. We were supposed to have dinner with him the evening we arrived, but there was snow on the ground, and we could not get a taxi in downtown Athens, so we had to call him and say we can't come to dinner. So we went to lunch the next day.

We then flew to Tel Aviv, and in Tel Aviv we had the opportunity to visit Jerusalem and Galilee, Capernaeum and made stops. It was a remarkable experience there. I remember having a very modest hotel right on the shore of the Mediterranean. We could see the surf and hear the water. It was much warmer there, by the way, than it was on the continent.

[13A]

LaBerge: We're in Israel.

Pister: Yes. So we had some very nice days. It was a short week visiting and ending with a meeting and dinner with one of my early master's students at Berkeley, a gentleman

named Asher Müller. Asher came as a grad student here in the early fifties, and he had been born in Germany and went to Israel after the war. I don't remember now how he managed to escape being sent to a concentration camp. He may not have. I've lost that, but Asher was a very good student. He became a very successful consulting engineer, structural engineer in Israel. He designed part of the parliament building, the Knesset, in Jerusalem, and he had a number of major architectural and structural accomplishments. He was an adjunct faculty member at the Technion, which is the technical university in Haifa. So it was awfully nice to be able to see him again. We always corresponded at Christmastime and exchanged cards. We were able to meet his wife and have an interesting evening with him.

We got back to Cork again without incident, much to the relief of my mother-in-law, I must expect, at this point, to have us take off like that and leaving her with that responsibility in a strange land. But apparently everything went well.

LaBerge: Great. And how long was this whole trip, about two or three weeks?

Pister: No. No. It was less than that. It was more like ten days, something like that. It wasn't that long, unless you were there with the six kids. So that took us into the springtime.

LaBerge: Of '66.

Fulbright Lectures at Three English Campuses

Pister: Yes. Spring of '66. In the spring, I also had the opportunity to go back to England. As a Fulbrighter I was asked to take a brief tour through England and Wales, and I visited three institutions, University of Nottingham, the University of Swansea in Wales, and the University at Bradford, which was a recently converted college of applied technology. The English had a set of institutions that were called CATs, colleges of applied technology. They were made universities after World War II. Bradford was one of them. At each one of these institutions I gave talks on my research. Each was a very different and very interesting experience which I'd like to mention.

The first place I visited was Bradford. I remember taking the train up to Bradford on British Rail. I got into the dining car I think two minutes late, and they refused to serve me anything, and I remember I was really furious. An Englishman came up to me and said--he knew I was American, not English. He said, "Don't feel bad. They do the same thing to us." So I didn't have anything to eat that night. I had two cookies and a cup of tea for dinner that evening. But anyway, I went to Bradford, I can't remember the name of the faculty member there now who was a professor of civil engineering. I had dinner with him in his home, very decent fellow, but again the cultural difference there was just enormous. A couple of things, he had absolutely no understanding of the United States. I think most American professors even at that time had some sense of what England was about. He asked questions about the blacks and the savages that were very surprising to me, but perhaps the most telling thing that he said was the following.

When I said I was going over to the European continent later in the summertime with my family, I asked him, "Surely you must visit the continent regularly." Just, "Oh no. I've never been to the continent. It's just not up to British standards." This was a full professor in 1966. What a peculiar view of the world. Just not up to the British standards. The amenities were not suitable to them. Anyway, so that was that.

At Nottingham I met a colleague by the name of Jeff Warburton, who knew my work through reading the literature. So he knew who I was, and he wanted me to talk about certain things. Nottingham at the time was a center with some very fine people in applied mechanics. Jeff was one. He was also the co-editor of a journal that I was familiar with. But he had several colleagues there who worked in continuum mechanics whose work I knew. Some of them had studied in the U.S. and were back in Nottingham. It was a very prolific center of research. I really enjoyed that visit and had a chance to meet these gentlemen. The curious thing about life in Nottingham, apart from the fact that the sheriff of Nottingham was known in the stories of Robin Hood-- [laughter]

Was that I stayed in a guest house on the campus. Lo and behold, in the morning I found that I had no plug that was compatible with the electric circuitry of the University of Nottingham. I learned later from Jeff that the reason for that was that you had to have a special plug and you were accountable for that plug. This was designed so that students wouldn't illegally scarf off electric current from the system using unauthorized things like coffeepots or heaters or things like that.

LaBerge: So you couldn't shave.

Pister: So I couldn't shave, right. At that time still you had to plug your razor in. He had to bring me a special plug so I could shave before I went out to the lecture. Anyway, so much for Nottingham.

LaBerge: Was Nottingham also one of these colleges of applied technology?

Pister: No. The University of Nottingham was a typical--it wasn't Oxbridge, but it was in the regular university system. Then I went to Swansea in Wales, and there I met the professor of civil engineering that I knew from the United States. He had been a faculty member at Northwestern University, and in fact he'd visited Berkeley. His name was Oleg Zienkewicz.

LaBerge: Do you want to spell that for me?

Pister: Well, I'll have to check it out. Z-I-E-N-K-E-W-I-C-Z. O-L-E-G is his first name. Oleg was also one of the early workers in the finite element method. Later on in fact, he and one of my early students Bob Taylor, whose name I have mentioned, collaborated on one of the most well-known books in finite element methodology. In fact, they just published a three-volume revision of their work that's been a best seller for years.

LaBerge: What's the title of it?

Pister: Golly, I can't remember what the title is. But anyway, Bob made I don't know how many sabbaticals at Swansea later on and visits with Oleg every year still, although he's getting quite elderly. Anyway, I knew Oleg from the fifties. I stayed in his home and got

acquainted with his wife and his family, and it was a very pleasant experience to be able to meet someone that I had known before.

LaBerge: Was the finite element method--is it something that you also worked in?

Pister: I worked on the edges of it with my students. A number of my students did work in that field. Yes. We'll talk about that later on. I did a lot of the work that was essentially foundational for applications of the finite element method. I worked less with the method than with the elements of science that you need to make the method work. So that was the lecture tour.

LaBerge: That you did by yourself.

Pister: I did that by myself, right. My wife and my family stayed home for that one.

LaBerge: Is that typical for a Fulbright scholar that you do need to give a lecture someplace?

Pister: Apparently you don't have to, but at that time at least Fulbrighters in that part of the world went on circuits. When I did a Fulbright in Germany, I guess, yes, I did the same thing. Yes. I gave lectures at other institutions.

LaBerge: It sounds like a good idea for both, the cross-fertilization of ideas.

Pister: Sure. I should mention here at this point in the Fulbright experience, this was my first. As I said, I had a second one in Germany. Certainly, the experience that we had in both of the Fulbright sabbaticals were essentially transformative in our lives, not just giving me the opportunity to do thinking and to do research, reading primarily that essentially replenished the energy that you need to keep your career going to open new directions. So not only is it an academically productive year, but the cultural side of it and the development of understanding of a different culture and viewing your own culture and your own institutions from abroad is a very, very instructive, powerful experience. I think everyone that I've talked to that's experienced a sabbatical abroad has felt the same way. I've often thought and remarked it's really unfortunate in our political system that the value of sending more people abroad to experience this and bringing more people from abroad here, that value is not as high as it should be. I've often kind of conjectured: suppose we had just taken one percent of our defense budget and put it into, instead of preparing missiles to fire at people, firing people at people and letting them fire back at us with people, how much better the world would be had we done that. It's, I think, one of the most productive programs we can have--to exchange people.

The sabbatical in Ireland, of course, took place right during the early parts of the student movements in the United States. The Vietnam War was heating up. Ronald Reagan became governor of California. I still remember going into my office in Cork and one of my Irish friends saying, "Ah, I read in *Time* magazine that the B-movie actor Ronald Reagan with the Irish name is running for governor of California." That's a big joke. They couldn't believe it. Little did they know what was going to happen downstream from that? Anyway, so I think the Fulbright program has often been under attack in our Congress, and it gets cut back at times, and it's a tragedy that that's the case.

I am really glad on one occasion, perhaps it would've been in the seventies or early eighties, there was a Fulbright conference here at Berkeley. Senator [William] Fulbright attended the conference, and I had the opportunity to meet him and to shake his hand and to express my thanks to him for the program that he was instrumental in getting started.

LaBerge: Also, I would think for your kids that must have been a wonderful opening for them.

Pister: Sure. It was. At the time I think they enjoyed it. At times I'm sure it was hard for them. It was probably hardest for my oldest son.

LaBerge: That's a hard age anyway.

Pister: Who became well, I guess he was just--let's see, '65--no, he was just fourteen. So it was very hard for him. As I said, the school culture was harder for him. He was older, to be accepted because he wasn't an Irish boy, and so he struggled. The other kids I think adapted quite well, except Kris, who became very ill on one of our trips. We had to stop in Northern Ireland and go to a physician and get an antibiotic, and that was a tough experience. Let me see. This sounds like a travelogue but--

Family Camping Trips Abroad, Spring 1966

LaBerge: That's what this part is about. Start into the camping trips.

Pister: Yes. I think the spring trip probably would be a good place to turn to now, because at the Easter break in Ireland, which I think was fairly extended, although we extended it beyond that. Our daughters' teachers said this is a great opportunity. Don't worry about missing some school. This cultural experience for your children is equally important, which I certainly agree with that. So we laid out a trip--would've been just before Easter because the Easter recess started then. A trip that took us from Cork to Rosslaere, which was a ferry port in the south of Ireland. The ferry goes to Fishguard in Wales. So we drove to Rosslaere and took an Irish ferry to Fishguard. The Irish ferry was not a drive-on passenger-car ferry. So they had to lift the cars on with a crane. We didn't have cabins. We, the men and the women, were separated into sleeping quarters. So my oldest son and I slept in a dormitory configuration with multiple bunks, and my wife and the girls and Kris slept with the women. [laughter]

Well, that night crossing the Irish Sea--I can't remember how many hours it took to get across the Irish Sea to Fishguard--was a terrible stormy night. Francis and I seemed to weather the night all right, but not poor Rita with the girls. They were in with a group of Girl Guides, like Girl Scouts, I guess. These Girl Guides, I guess, had recklessly eaten too much, and because it got so stormy they got sick as dogs. They were constantly getting up and making messes all over the place, but none of our kids got sick fortunately. On top of that, there were lights on all over the place, and Rita had to get up and unscrew the light, and somebody would screw the light on again. So I don't think she slept at all that night.

On top of that, when we got down the next morning, lo and behold, the cargo in the hold had moved, and something had smashed against the side of our van and put a hole in the

aluminum siding of our van, not a bad one. But we weren't pleased with this at all. It was a brand-new van. So I remember when we got to Fishguard, having to take time to go and file a claim, which ultimately got paid. So here we are in Wales. We drove that day from Wales to Oxford, England. We arrived at a place called the Oxford Lodge. We had all of our camping gear with some exceptions, which I'll come to. We tooled into the Oxford Lodge, and I checked in there. The management, I guess, respectfully accepted my pounds to book us in. But when we came back for tea, they carefully shepherded our whole family into a separate room, because they didn't want this wild American family with eight people to disturb the English afternoon tea. So they put us in a separate room. The next morning when we came down for breakfast, we indeed had our breakfast in a separate room. [laughter]

But when we checked out, to our great surprise, the person who checked us out was lavish in his praise and his--I can't think of the right word--surprise, I guess, that our family was so well behaved. He told a colleague there, "You know, when it came time to order breakfast, the children were just told, you have this or this or this and that's it." He was amazed that this American family was so well disciplined and that we hadn't trashed his Oxford Lodge. So much for Oxford. That was quite an experience.

We then drove down to London. In London we had the very good fortune of going to a very improbable place for a camping van to arrive, to a lovely flat in Knightsbridge, not that far from Harrod's, I might add. Living in Knightsbridge in this really great flat was a classmate of my brother's, Don Henrikson, and his wife and daughter. Don at the time was a senior officer in Atlantic Richfield. He was a petroleum geologist from Berkeley and Stanford ultimately, and a really good friend of our family. His mother and father were really good friends of my mother and father. I don't remember exactly how they met, but they shared our cabin in the mountains. We had known them for years, and I knew Don and his wife. So they were gracious enough to let us have some of the mail order camping equipment sent there that we'd ordered from a firm in Scotland, Blacks. I still remember. We ordered sleeping bags and a toilet tent.

LaBerge: A toilet tent.

Pister: A toilet tent, you know the construction boxes that you see. Well, this was a canvas version of one of those things. I mean, you had to look ahead for things like this. If you have any experience with the toilet facilities in much of Europe in the 1960s, you would understand this. So we had all this sent. There was a porter down at the door. You can imagine his surprise when all this stuff arrived for the Henrikson family. They were good enough to let us spend the night in their flat. I think we just all pulled our sleeping bags and slept on the floor. I mean the children did. We didn't. We had a bed. It was great to be with them there. I guess I had forgotten. I had stopped by and spent a night with them on that spring trip through--

LaBerge: When you were by yourself.

Pister: When I was by myself. I made contact, and I think that was what set up this invasion in March of '66. We had a nice time with them. They had a lovely daughter that matched one of our daughters, and things went well. So we collected ourselves and took off from London, drove to Southampton. We spent the night in Southampton (it snowed that night!) and took the ferry from Southampton to Le Havre. So that took us to the coast of

France. We must've arrived in mid-day or so because we drove far enough into a camping place that allowed us to stop and look across the water to Mont-Saint-Michel.

LaBerge: Oh, how wonderful.

Pister: That began our great adventure in France and Spain.

LaBerge: You must have ahead of time found out where the camping places were, had a map.

Pister: We had two wonderful books. We belonged to the British AA, the Automobile Association, and they had a camping book which we had. Then we purchased another book called *Camping Europa*, which had an extensive list of camping places and all the amenities and costs of everything, just an incredibly rich resource.

LaBerge: I take it your kids were used to this; you'd done this before in the United States.

Pister: No.

LaBerge: Oh, they weren't? This is the first experience.

Pister: We had one camping trip ever. Rita was not an accomplished camper. I, of course, had camped a lot. But this is a hybrid sort of camping because we could cook and wash dishes and stuff in the car, in the van, but the kids slept in the tent, which was a Sears-Roebuck tent. We ate outside on a little collapsible table, because I had built a rack above the two front seats that you could put the table in. There was a big overhead, over the driver's compartment there was a lot of storage space and under the big bed there was storage. We camped, I think it was called Mont-Saint-Michel. We spent a day there, had a wonderful time seeing that wonderful old place. Then we drove down the Atlantic coast of France. I don't remember all the places now.

I know we stopped at Nantes, which was a coincidence because my daughter Jacinta, who is vice president of Simpson Enterprises, goes to Nantes now because their company has a factory over there. She's been back to Nantes again. We stopped in one place. I think it was called Bley [Blaye], is that right? There was a castle there, and the kids were fascinated by that castle. It was dripping down rain, and a gentleman there was really good. He said you don't want to put your tent up out in the rain. Why don't you go into this room? So we camped in a room that night. Let's see, we continued to go south and crossed into Spain at San Sebastian.

LaBerge: Oh, okay. Oh, beautiful.

Pister: And we camped there that night. Went down the center of Spain and camped in Burgos and saw the famous cathedral where El Cid appeared. I remember it was camping in *Fuentes Blancas*, white fountains. The interesting thing there was, we always tried to buy the local wines, and I remember getting a huge jug of Spanish wine for something like a dollar in those days, just incredibly cheap. In fact in retrospect, you could camp then for practically nothing. We belonged to the international camping club, so we got a discount and everything was very simple. We went as far south as Madrid and camped in a very nice camp in Madrid for a number of days and visited--

LaBerge: Right in the city?

Pister: No, it was on the outskirts of the city. We went in and visited the famous museum [the Prado], of course, and went to a flea market and bought some things there and just had a really nice experience. I remember going to a bakery in Madrid with my oldest son, who had studied Spanish already, and trying to deal with the guy in the bakery, and before we left the guy said, "Well, your son speaks pretty good Spanish, but you don't." [laughter] Anyway, we then drove back up through Spain again and France--

LaBerge: Same route or different?

Pister: We went back up the same route. We stayed at some different places on the return. There was an interesting experience I forgot. When we were trying to find the camping place in Nantes. This was on the way down. We were out in the countryside somewhere, and we came up to an intersection, and you may have seen this scene with French police in the countryside. They typically ride bicycles, and they have white gloves. This policeman was standing in the intersection--

[13B]

Pister: He came up to the van, said hello, and I was trying to find out where the camping place was in Nantes that we were trying to find. The only response I could get from him was *gauche*, left, *droit*, right. That was it. So we didn't get much help. I don't remember how we finally got to the place in Nantes. But we got back, we came back more or less without any difficulty.

LaBerge: To Wales.

Pister: To Wales, again. We came back into Cardiff, and the weather was really bad. In fact it was snowing. So we pulled into this camping place in Cardiff, almost in the city center, right in downtown Cardiff. There was a camping place. There was snow on the ground. There was no way in the world that we were going to put a tent on the ground that night. That was the first occasion when all eight of us slept in the van. There were beds on two sides that people could sleep on. Then we put two of the folding cots together, one above the other. So two people slept in the alley way, and then we had this hammock that went across behind the driver seat. I slept up there with Kris. We had a sleeping bag for him too, a little miniature sleeping bag that he was in. Then I think one of the girls slept across the driver's seat and the passenger's seat, and then some unfortunate person actually had to sleep on the floor around the gear shift. It was eight people in this one van. Oh, I don't know how we spent that night, but that was an experience at Cardiff that was traumatic.

LaBerge: Grandma stayed home in Ireland.

Pister: Ah, at that point Grandma had gone home. Rita's mother became ill with a respiratory infection of some kind. The winter was not great for her, and I think she was worn out, frankly, in dealing with all of our problems. So we sent her back. We were essentially just by ourselves. Anyway, we got back to Ireland. It was snowing there. So the trip back was quite an interesting one, to get back to our place in Cork where it was not snowing.

That experience though was a remarkable one, because the children went through three different language groups, probably more than that because of the dialects. They saw the different cultures. We went into Spain at a time when the Spanish had every right to be upset with us because one of our strategic air command bombers had unwittingly dropped a nuclear weapon on them--it didn't explode, but it went out of the bomb bay and fell in a field. We had to send a special team over to clean it up. We had an American flag. The kids drew an American flag and put it on the back of our car. We had a British license plate on the car, of course. So they wanted to be sure that they knew we were Americans, and the Spanish people that we met there were extremely friendly and very open to Americans.

There are a couple of places that impressed us all that I should mention. We stayed in Segovia, and Segovia, of course, is famous for a wonderful Roman aqueduct that is still intact, and we all marveled at this totally unreinforced structure, no glue holding the aqueduct together. The other really impressive experience was to visit the town of Ávila. Ávila is a walled city, and the walls are still intact. It, of course, is famous because of Saint Teresa of Ávila. So we stayed in a hotel in Ávila, and that was a signal event. I'll have to call it that. I still remember the hotel, this would've been in late March of 1966. For the eight of us, the hotel was twelve dollars and fifty cents. That included breakfast. The wonderful thing about the hotel was that Rita gave all the kids baths that night because we had a tub with hot water. So the kids all had baths, which were not available in the camps typically. That was a great experience to be able to just spend the night in a hotel after camping out.

The visit in Ávila, I remember I engaged an English-speaking guide who I think for the sum of five dollars spent almost the entire day with us taking us around. I remember going to the convent where Saint Teresa spent her life and seeing a confessional there with a note, which I could read, that said, "Here is the confessional where Teresa went to confession to Juan de la Cruz," John of the Cross. One more recollection of Ávila. We went to what must have been a church of Saint Teresa because there was a reliquary there with a relic of the saint. And the children, I don't know what they expected, were dismayed that it was a joint of one of her fingers. So much for poor Saint Teresa of Ávila.

I think this would be a good time to stop.

LaBerge: We'll finish up next time with summer camping.

Fulbright Lectures in Ireland

[Interview 8: February 14, 2002] ## [14A]

LaBerge: Let's finish up on your sabbatical year in Ireland. We had gotten to the spring, I think, of 1966.

Pister: Right. I remember we completed the trip to France and Spain that we took in our Commer during Easter recess in the spring of 1966. I came back then, and for the remainder of the academic year--call it the spring quarter--I taught what in this country we'd call a junior

year class. It was a third-year class in applied mathematics and mechanics for Professor Quinlan. It was a really interesting experience for me to give a class to a group of young Irish students. To start with the physical environment, they sat in a lecture hall with raised seats going back up to the back of the room, and they had enormous blackboards, which were washed beforehand by a staff member. At the beginning, I tried to adhere to the campus custom of lecturing in a gown, which was still the practice in Ireland at that time, but at some point fairly early on, I gave up the practice of lecturing in a gown because I just found it extremely difficult. I got chalk all over me all of the time, and it just didn't work out. So I discarded my gown.

The other thing, of course, in the spring it rains a great deal in Ireland. So inevitably the students would come in dripping wet, and there'd be umbrellas and overcoats and stuff all over the place and water all over the floor. It was quite an unnerving experience from the students' standpoint. There were problems in that I spoke American English and not Irish English, and probably used a lot of colloquial language that they had difficulty following. But certainly the most troubling thing for them was that I shaped the course according to my own sense of what was important for that course, and it was totally new to most of them and different from what Professor Quinlan would have taught. When I look back at the final exam that I gave and the grading of it, it concerns me. However, I didn't give them a grade because I didn't feel competent to do that, the class as group did not do very well. Following the tradition there, I assigned problems, but I didn't ask the students to return them to me. No students ever came and asked me about the problems. So I think probably it was a great big cloud of mystery for most of them. I have no idea what happened to those poor kids, but at least I did my duty as a Fulbright lecturer.

A couple of other points about the appointment there that were interesting to me. In May of that year, I was invited to go to Trinity College in Dublin to give a seminar to the department of mathematical physics there. That was a really interesting experience. I can't remember his name now. There was a Scot mathematician who was the head of the department whose name I had seen in published works. I knew who he was and had a difficult time understanding his brand of English, I might say. But it was a really wonderful experience because while there, of course, I had a chance to go to the chapel of Trinity College, which has the famous Book of Kells and to have a firsthand look at the Book of Kells. That was a nice experience.

The other thing I should mention--and this happened at least twice when I was there, I believe--was a visit to the Institute of Advanced Studies in Dublin, which was an historically important institute mainly for physics in the earlier part of the last century. At one time, I remember there were photographs to show this, the likes of Einstein and Pauli and all of the prominent German and other European physicists would gather there to talk about physics in the period before the war, in the twenties particularly. So I attended an annual meeting of academics in Ireland at that institute and had the opportunity to sit in this beautiful Georgian building with the fan above the doorway, quite a nice experience to have been part of that place. The name that I was connected most knowledgeably about was J. L. Synge. J. L. Synge had written in the field of my interest, and it was interesting to go there and to meet this gentleman. There was another J. M. Synge, by the way, who was a playwright in Ireland. This was not the same person.

Let's see. I think that pretty well summarizes the experience. As I mentioned earlier, it was interesting to be at a small college with a library that had the Boole window. Boolean

algebra was named after Boole. Boolean algebra turned out to be the algebra that was necessary to program the electronic computer, the digital computer. I'm sure Mr. Boole had no idea that the algebra he invented would be used the way it is today.

We planned to leave Ireland in June to start a travel trip across the continent before returning to the United States. In the early part of June when school finished, our main objective was to get packed up to send things back, and to get rid of the things we had in the house. That was an interesting experience because we, as I indicated earlier, made a lot of the objects, the furniture objects in our house. We put all these things up for sale. We had all kinds of people coming to buy our things and these rough pieces of furniture that I made, like the dining room table and the headboards of the bed and the living room furniture, and all were sought-after items. We had no difficulty selling them.

The other thing that was amusing in retrospect, the bookcase that I built was a bookcase very familiar to college students in the United States. You've got a couple of cinder blocks and a couple of planks and use the blocks and the planks to construct your bookcase. I had built a bookcase like this, and this went instantly as well. This is an American bookcase. [laughter] So we had no trouble selling all our things. The other thing I should mention is while there, of course, we took advantage of the fact that we were in Ireland where Waterford crystal is made. So during the time we collected a complete set of Waterford crystal of the pattern that we liked.

More Family Camping in Europe: Summer 1966

LaBerge: What's the pattern?

Pister: The pattern is Colleen. I don't know if you know Colleen. It has diamond cuts on the side, but very fancy, very expensive now, I might add. So we packed all that up, and we arranged to have all of the stuff we were shipping sent to the port of Cork, which is Cobh, spelled C-O-B-H. In fact, Cobh in history is interesting, has a special place because it's the place where the survivors of the sinking of the *Lusitania* came. The *Lusitania* was sunk off the coast of Ireland near Cobh. There's a plaque there, as a matter of fact, that we saw. Anyway, we sent our stuff that we packed up to Cobh to be held, because we had arranged to return to the United States on the Holland America Line leaving from Netherlands via Cobh on the way to New York. We knew that was possible, so we made arrangements that all of our household things that had been packed into boxes would be picked up at Cobh when we came back on the way back.

We proposed to take a ferry across to the continent again. Unfortunately, we left at the time of a ferry strike. There were no ferries going from the Republic of Ireland. So what we did was to drive to Northern Ireland because the Northern Ireland ferries, of course, being part of the British empire at that time, were not on strike. But understandably, there'd be a lot of pressure on the ferry system. So we drove to the north of Ireland, to Larne, crossing to Stranraer. I remember that period very well because we had our camping van. We pulled up the night before of the departure of the ferry in the morning and basically camped on the pier along with many other people, I might add, who pulled

up waiting to get on the ferry. So we were right in line there, lived in our van one more time.

Then in the morning when the gates opened up, the first thing that happened, they let all the trucks on first no matter where they were, because they were part of the commerce of the country, but we managed to get on all right. We ended up in Scotland and went out to Gretna Green. That's where we stopped. That was the castle of Robert the Bruce. So we had a wonderful night there.

LaBerge: What a wonderful educational experience for your kids!

Pister: Oh yes. Because our kids read about these things, and then they were there. We went down into a cave that was supposedly occupied--you remember Robert the Bruce was hidden for, I don't know how long. There was a spider in his cave that he became acquainted with. We saw all of that, and the only down side was that it poured down rain the night we were there, and the kids hadn't closed the tent, and their sleeping bags all got soaked. So we went from there to London and camped in the Crystal Palace camping grounds. Crystal Palace, remember, was a leftover from the time of Victoria and Albert, and it was I think Albert's inspiration to build the Crystal Palace, which is quite a remarkable thing. So we dried out our bags, and we had a wonderful time taking the kids around London to see all the sites. From there we went to Southampton and spent a night in Southampton before we took the ferry across to Calais.

So many things happened that summer. I think it would take the rest of our time just to talk about the many things we did, which were in retrospect I think tremendously important in educating and helping to form our children and their understanding of the world and their development of appreciation for other people and other cultures, because we stayed in camps, typically camps that were often in the city or at the edge of the city. We met Europeans that were camping the same way, and relatively few Americans actually back in the sixties were doing this. I still remember our youngest, Kris, who was at that time about two and a half now. He would typically get out and walk around and say, "Hi, my name's Kris, and I speak English." He was a great door opener for us because he would become acquainted with the neighboring campers before we would be able to talk to anybody--something that little children have no difficulty with.

We went through France. One thing that comes to memory right away was spending a day or two in Rheims and going to the cathedral in Rheims where Jeanne D'Arc was known to have been, and went further south into Italy and came into Italy near the town just below the Matterhorn Peak. In Italian the Matterhorn is called Cervino, and we were near the village of Cervinia, which is at the foot of the Matterhorn on the Italian side. I'd always had a tremendous attraction to the Matterhorn as a young person. So it was quite a thrill for me to drive up to Cervinia with the Matterhorn towering above us. It was a clear day that day. I still remember. It was quite an inspiration for me, and I have a picture of my two-year-old son in front of the Matterhorn in our mountain cabin.

We then went down into Italy and did the usual tours in Italy. Instead of staying in major cities we were usually in nearby suburbs. I can't believe in retrospect, I actually drove in the city of Rome in this huge van! They drove on the right side of the road, but just to think in retrospect of driving in Milan and in Rome gives me chills. I had car trouble in Rome. I had to have the starter fixed. How I ever managed to get to a garage and get the

starter fixed in retrospect, I don't know. At that time I had not started to study Italian, so my knowledge of Italian was limited to the cognates that I knew from Latin and Spanish. We had a wonderful few days on the Adriatic coast at Pescara as well as beautiful days camping at Assisi overlooking the Umbrian Valley right down from the main basilica of Saint Francis of Assisi. That was a wonderful experience for us and the children since we all had, particularly my wife and I, a real connection to Saint Francis.

LaBerge: And you had your own Francis and Claire with you.

Pister: We took Claire to the convent of Saint Claire, and she signed the book because she was a Claire. On the other hand, I remember the trouble we had with our girls. They were wearing shorts, and we went to go to the cathedral of Santa Chiara. The guards there wouldn't admit our kids, even though they were little girls, because they were in shorts, and they weren't properly attired, and they had to go back and put skirts on to go into the cathedral. We went down into the crypt of Saint Claire, and you are probably familiar, Germaine, with the old term given to a person who "died in the odor of sanctity." That's an old term that was ascribed to people who had led holy lives. Well, Saint Claire was said to be one such person, and it was said she was perfectly preserved. Well, we went down and visited Saint Claire and had a chance to examine poor Saint Claire. She didn't look too well for the few hundred years since she'd died in the odor of sanctity. The kids were grossly disappointed because they thought they'd see virtually a normal human being. [laughter]

The trip up the Adriatic Coast was directed toward Venice. Alas, on the road to Venice, not too far from Venice, but still on the coastline, we were going into a little village not moving really very fast. A young girl on a bicycle came toward us, and she turned back to look at something or to talk to someone and started to go directly in the path of my van. So I had no choice but to swerve to the right, otherwise I would have hit her head on. In swerving to the right, we were up on a road with an embankment, not a drop or anything, but it was a banked road. I swerved too much, and I got my right wheels over the edge of the pavement onto the embankment, and we slowed down and almost came to a rest and then tipped over.

So here we had a car full of kids. I had neglected to mention that in Rome we acquired a lifetime college friend of my wife's, single lady, Margaret Crosgrove. Poor Margaret, who would have been about our age, camped with us, lived in the tent with our five kids every night. So Margaret was in the back, and the car rolled over. A concrete post smashed through one window, and Kris, the little guy, was thrown. She caught him. Margaret caught him, and no one--I think our daughter Anita got a few bruises or scrapes--but no one was injured because I had managed to slow the truck down, but I couldn't get it back on the road, and it just slowly, almost in slow motion, crashed. So here we are on the side of the road. I opened my door to crawl out. Then I got everybody out, and of course, immediately there was a huge crowd of people gathered around, and nobody was speaking English.

Fortunately, there was a gentleman in a car behind me in a Jaguar who came up. He spoke perfect English, and by the grace of God he was not only an English-speaking Italian, he was an attorney as well. He was very gracious. His daughter had been in London. So he was very much of a pro-American person. So he said, "I saw the whole thing. It was a terrible thing that woman did and it's not your fault and I'll testify for you." I don't

remember how this happened. Somebody called the carabinieri or whatever they--can't remember the Italian word now--and they came, and I had to fill out this long accident report form in Italian. I think I had a dictionary to fill it out. The girl just disappeared like that.

LaBerge: So you never saw her again.

Pister: Never saw her again, no. Anyway, he called the police, and somehow they came out and a wrecking car came out. Well, one wrecking car. It was small. It couldn't pull that van up by itself. So they had to get two wrecking cars to pull it out. So they finally got our truck back on the pavement again, upright. It was okay.

LaBerge: It was okay!

Pister: Yes. The body was damaged. The window was broken on one side, but the truck was okay. People were kind of shaken up. I had two storage batteries in the car because remember, I said the engine was inside the cab of this thing. They leaked battery acid on some stuff. So we had some of that kind of damage. The chemical toilet turned over and leaked a bit but--

LaBerge: But the engine.

Pister: Apart from that, the engine worked. So we drove into Padua. We were planning to go there anyway. You can't stay in Venice with a truck like that, so we were planning to stay in Padua. We pulled into Padua, and I still remember not eating dinner that night until about midnight. I think we had an omelet, probably a couple of slugs of something to try to calm us down as well.

Well, the next day, I don't remember now how I knew this, but I obviously knew this. I said, "Aha. I'm going to call the UC Center at Padua because I know that Henry Lagorio is there." Henry being a colleague from architecture. I knew Henry, and I knew that he was the director of the Padua Center. So I called Henry, and he was really gracious. He came over and got me. Two things I had to do. One was to send a telegram to the automobile association in London because my windscreen, my windshield, it wasn't broken through, but it was shattered. I had to replace the windscreen. The body I couldn't do anything about. I had one broken window. So Henry helped me get the telegram sent, and then I said, "Well, Henry we need a piece of plywood to patch my window so I can close the thing up, otherwise people are going to come and go out the window of the truck." So he was good. We went around. I think he didn't know the Italian word for plywood, which I've never forgotten, (*ligno compresato*). So we got the plywood, and I patched the window up, and Henry went on his way, and I certainly was eternally grateful to him for helping us out.

From there we went north into Austria, actually. We had planned to go north through Switzerland, but my wife was the navigator, and we took some wrong turns and came to the border and I said, "That's not the Swiss flag. It's an Austrian flag." So we entered Austria over Resia Pass, and camped at Lake Constance, which I might say I visited with Rita just this last year again for a conference. It was kind of nice to go back in little more pleasant surroundings. We had a very wet summer that year and it rained all the time. When we got to Constance, the skies were gray and the campground was flooded. We

finally found kind of a gravelly road where we could put the tent up. It wasn't a very pleasant place to be.

We went from there on into Germany, and I think that bears a special mention. We camped in Germany in a very nice camp at the source of the Danube River, Donaueschingen.

LaBerge: You're going to have to put all these in when you see the transcript.

Pister: I will. Yes. Donaueschingen means "Danube source" in German. The reason we went to that particular camp was that it was near the city of Tuttlingen. Tuttlingen was the residence of a descendant of one of my grandfather's relatives. She was a cousin several times removed.

LaBerge: Which grandfather are we talking about?

Pister: My Pister grandfather. Her name was Annie Doll, and she lived with a son and his wife in an attic room, the "dach Zimmer" the Germans call it, which was typical there, that people lived in attics. They were fixed-up attics and they weren't bad places to live. But it was interesting to go there because she had corresponded with my parents right after World War II, and that's how I knew where she was and all, and she knew who we were. She corresponded with my parents because her family had been essentially wiped out in World War II. Their home was destroyed. Their business was destroyed, not in Tuttlingen, as they were living in a different part of Germany. But like many Germans, they had nothing after the war. I remember my mother sent her care packages of sewing materials, of vegetable seeds, a whole variety of just basic things that they needed to survive. She was very gracious because of the contact with my parents and the fact that they helped. We had dinner with her there that night, and it was the first time I'd ever met her, of course. She spoke halting English, and between English and German, we were able to converse reasonably well. So that was quite a nice experience to be there.

From that camping place we went to Stuttgart, which of course later on I returned to twice for sabbaticals, but at that time I had no idea I'd ever go to Stuttgart. I had met Professor Argyris earlier that year, but I didn't contact him on this return. I think I called, and they said he was in Sweden. But we camped in Stuttgart, and we went to the garage where our windscreen was supposed to have been sent. Lo and behold, indeed they had the windscreen at that garage, and it had been sent by air freight from London. They said when it arrived they didn't know what it was for, but the manager there spoke English well enough that I could get this straight. He said, "We knew somebody would show up eventually." We did, and they changed the windscreen for us. So that was a great step forward. We still had the broken side window. I couldn't get that fixed until I returned to the United States. Anyway, we spent a few days in Stuttgart.

Impact of the Sojourn in Europe

[14B]

LaBerge: You left Stuttgart.

Pister: Yes. We went to Frankfurt and camped at Frankfurt for several days, because at Frankfurt I took my wife and Margaret, her friend, to the Frankfurt airport. My wife and her friend flew to Oslo because, as I think I've noted, my wife Rita's paternal ancestors are Norwegian. She had corresponded with a cousin there, so she and Margaret flew to Oslo, and Rita spent a few days there with her cousin. We'll come back to that again because we've kept in touch with them and visited them on--

LaBerge: Are they the ones you went on a cruise with?

Pister: Yes, and in fact we're going to cruise with them next month. So that was quite interesting. It left me with the--

LaBerge: Six kids. [laughter]

Pister: Six kids in the campground. I remember we went to the Frankfurt zoo, which is a very famous zoo, and Thérèse got lost in the snake exhibits somewhere. We couldn't find her, and I don't particularly care for snakes. So I had to search for my daughter among the snakes. But we got along fine. I don't think there were any problems except that I almost didn't get them to their flight on time trying to get into the Frankfurt airport.

But from there we went on up, I should say down the Rhine River through northern Germany and ended up in Rotterdam. In Rotterdam I think we camped only for a night, maybe two nights, because that was our embarkation point for our trip home. We drove the Commer van to a big shed because it was going to be sent home, not on our ship but on another ship. We had to pack everything up, and I tried to nail everything shut because I knew what happens when stuff gets shipped. It gets stripped. So I nailed everything shut, and we took just the clothes that we needed for the trip back. I remember we had to buy a couple of extra suitcases there, and we walked on board the New Amsterdam with a few suitcases and a lot of stuff in paper bags. When they saw us coming--you know they always take photographs of people coming on the ship--I think they didn't bother to take photographs of us because here are these grungy--

LaBerge: Grungy--

Pister: Grungy-looking Americans carrying their stuff on with paper bags onto the ship. Rita and I and our two sons had one stateroom, if you call it that. It was an inner cabin with no windows. The four girls had another cabin somewhere. I can't remember now. But the most impressive thing, of course, once we got on the ship was that we had showers and hot and cold running water. We could all sit down at a table together, and we had a server to serve the meal and the kids especially were impressed by the fact that they could order whatever they wanted on the ship. I have a nice picture of us on that cruise that I'll have to put in the book because it was a nice experience. It was a four or five day crossing from

Rotterdam to New York. It was quite an experience--on the cruise the kids had a lot of fun running around the ship and learning about it before we came into New York.

We had only a brief stay in New York. We had a visit with friends at the airport. In fact it was the friend that brought Rita to the Friday night dance where I met Rita in March of 1947, Janet Kropp was her name. Janet and her husband came to visit us, and we sat, I remember, at the airport and they brought some sandwiches with them, and we took a plane from New York to Omaha. We had to stop in Omaha again so that Rita could show all of our family to her Omaha Mercy sister friends.

LaBerge: So did you actually stay in Omaha or did you just get off the plane?

Pister: We stayed one night in Omaha. I had to rent a car--there were eight of us. So it was hard to jam everybody in a car. Then I had to find a place to stay, and that was another challenge to find a motel at the last minute. The next day we visited the convent and had a big meal and the girls performed, recited Irish poetry and did Irish dancing, and our oldest son played the piano, and so it was a real kind of a, let's see, what the Irish called a feis. So we made quite an impression on the Mercy sisters there. Then we flew back to San Francisco, and I don't remember even--

LaBerge: How you got back to your house.

Pister: How we got back to our house, but it was quite a good experience to be back again.

I didn't mention that during the year we were gone, I rented the house furnished to a family from Duke University whose name now escapes me. They had, I think, two children and he worked in Melvin Calvin's laboratory while he was here, the biodynamics lab during the summer that year, and so they were happy to have our home for the time we were gone. Generally, they kept it well. The only difficulty was on Fourth of July their kids on our back hill were using fireworks, and they set the hill on fire, and the fire department had to come out and put the fire out. It burned a bunch of my border shrubs, which I had to replace. Generally, that was the only price we paid.

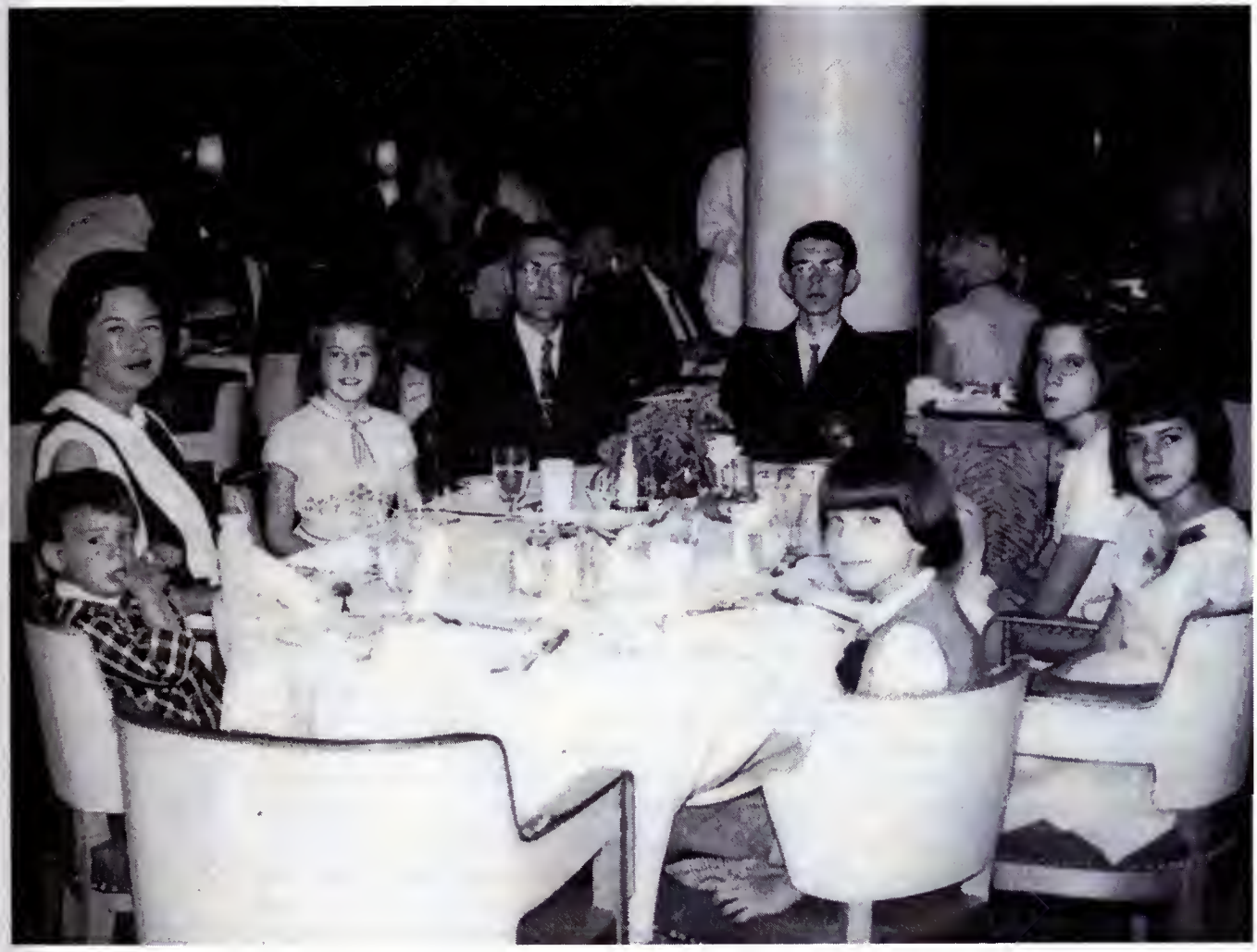
LaBerge: Other times when you took sabbaticals, did you rent your house?

Pister: No. I think the only reason we did it that year was we simply needed to do it for financial reasons. We couldn't have made it, but subsequently, we always had someone in our house while we were gone, but it was typically a family member that stayed. When we went away, there was always somebody home still. That pretty much concludes that sabbatical year. I came back, of course, in the throes of all of the unrest of the campus in the fall of '66.

LaBerge: We're going to cover that another time.

Last time we met--I don't know if you want to talk about this now--you said what an impact this whole year had on you and your philosophy. Should we talk about that now?

Pister: Yes. Certainly. I think that's important because it probably shaped my response to a lot of difficult issues and times that we had in the late sixties and early seventies in the university, on the Berkeley campus and in our society in general. The opportunity to



Family returning from sabbatical leave in Ireland, September 1966, *New Amsterdam* (shipboard)

travel away from one's country to examine and be essentially a part of a different culture, and to be sure, when you travel you're not entirely a part of a culture unless you live there for a while. So it's different. The experience, in my experience at least, is different if you're just traveling through as a tourist or if you're actually living in the country. That's an important consideration. So to a certain extent the cultural experience is much more illuminating and more profound when you stay in the country for a period of time as we did in Ireland. Although certainly traveling through countries gives you a sense of what is different or what you like or dislike about your experience. But it may not be at all the same as if you lived in that place for a while.

The Irish experience, coming at the time that it did in our own history, I felt gave me the opportunity to reflect on all the good things that our culture offered, the things that were, shall I say, productive of the good life and the casualness of American social relationships. As opposed to other particularly European societies, the openness and friendliness and our whole sense of personal freedom, the development of certain parts of our infrastructure, the predictability of things, that you knew how long it took you to go from here to here and things like that at that time was much more certain, and much less certain when you were in a different culture. But, I think, most profoundly it was the view of our engagement in Vietnam, and from the European perspective the futility of all of that, and it certainly--

LaBerge: Did people engage in conversation about that with you?

Pister: Yes, we did talk about that, and we talked about also, we contrasted the experience we had in Israel with living in Ireland. The differences are often dramatic, but you can learn from the differences and learn that there isn't just one way to deal with complex issues. I think that it's looking at how different peoples have resolved the challenges and complications of life as well as how they celebrate the joys of life. The two sides of one's existence I think are things you probably don't think much about when you're home, but for various reasons they become much more compelling and more profound when you get away from home because you're faced with new challenges you haven't faced before. You have to deal with them differently. You find a whole new set of joys and simple pleasures that you might not have had the need to or the opportunity to experience at home. So it's from that standpoint, I think, it's tremendously important in one's personal development to be able to have that experience. As I've said before, I just wish as a matter of public policy, we would see that as a valuable asset in helping to stabilize world relationships, international relationships. So I think that's probably all I can say about--

LaBerge: You might say more on it when you get to certain topics.

Pister: Sure.

LaBerge: Do you want to go to some of the things on the correspondence list?

VII. COLLEGE OF ENGINEERING, 1966 -1980

Vice Chairman of Division of Structural Engineering and Structural Mechanics

Pister: Let me see where I can dip back in here now. [looking at notes]

What I can do is to talk a little bit about settling back into life on the campus now and some of the things that happened in that period after my return from sabbatical beginning in the fall of 1966. I got back right away into my research work in viscoelasticity with applications to the structural integrity of solid rocket engines. I note here that in April of '67 I made a visit to Rohm and Haas in Huntsville, Alabama. Apart from the technical part of that, Rohm and Haas was one of the major suppliers of solid rocket fuel. They were a chemical company originally and still are. They provided the ingredients to make rocket grains.

Huntsville was a very interesting place. That was where Wernher von Braun was brought from Germany to head up our rocket program, and so it was a kind of a cultural island in the South because it had so many Germans and others scientists and engineers there. Just in passing, apart from, getting back into the technical work in structural integrity as I was, from a totally different perspective, I had not been to the South before. I remember the shock that I experienced going into a store and finding two cash registers with a little railing in between them, and one said White and one said Colored. I'd never experienced anything like that, of course, in California. It was a very visible reminder of the segregation in the South; the civil rights movement was gaining steam at that point, but, of course, those things were still in place in many communities.

I think a couple of other things I'd like to mention with no particular continuity to these issues was, I had a visit in that period of time, I noticed it was in March of 1967, from Professor Washizu from the University of Tokyo. He had been a person that I had known through his work, and it was a wonderful opportunity to get acquainted with him personally. He visited my home. He sent me a copy of his book, which I'd used before. He was an aeronautical engineer who after the war, because the terms of the treaty with Japan forbade them from making any kind of aircraft, couldn't really relate to his profession in Japan because there wasn't any technology anymore. But he was an excellent researcher and it was a pleasure to get to know him.

Also at this time I had become vice chairman of the Division of Structural Engineering and Structural Mechanics in the Department of Civil Engineering. I had an office in McLaughlin Hall, the old engineering building just below the office that I had some years later when I became dean of engineering.

I note that I wrote a letter to my high school Latin teacher, Lillian P. Williams, the teacher to whom I think I've already made reference as having set my academic course as far as I'm concerned. She was the one that taught me scholarship, taught me rigor, as well as giving me a wonderful insight into language. I believe this was on the occasion of her ninetieth birthday in Stockton. My mother and father knew her and used to see her at meetings of a retired teachers group that they attended in Stockton.

LaBerge: Now, in your position now as vice chairman, was this your first administrative position?

Pister: I had been vice chairman in, let's see, I had been vice chairman I think in the year '64-'65, and then I went on sabbatical '65-'66, and I came back and spent two more years as vice chairman. I remember when I was on sabbatical, the chairman wrote to me and said, "Of course, when you come back, you'll be vice chairman again." I wrote back and said, "Well, why do I have to do that?" He wrote back--it was a very stern letter--and said, "Yes, you'd better do it." So I told him that was just a trial balloon. I still remember composing that letter on an old typewriter in my office in Cork, banging out the letter.

LaBerge: Who was the chairman?

Pister: The chairman then was a colleague by the name of Jerry Raphael, Jerome Raphael, wonderful man who is not with us any longer, but a great guy to work with. Some other things in that period that I'd like to mention, in July of 1969, this is the period between my return in '66 and the early seventies, which has another really important milestone to it, I was invited to attend the Lair of the Bear.

LaBerge: As a speaker?

Pister: As one of the speakers. They actually had a panel that year, and it was right during, of course, the terrible trauma of Berkeley. I was one of the panelists that talked about life on campus. Of course, there was still a very visible and strong split between those that absolutely opposed everything that was going on, and why weren't we doing something about it, and those that had some understanding and a certain amount of sympathy for some of the issues that were being struggled with during that time.

LaBerge: Does this mean you took your family for the week?

Pister: Yes. We took the family. I guess we must have appeared to the camp director, who was Jim Lemmon, I think at the time, as, if I may use the term, not a golden bear but a *bête noir* because we drove our van right next to the tent. They did not permit automobiles.

LaBerge: No, they don't.

Pister: So we just drove our van next to the tent. Poor Jim, we were told more than once that we should move but we never did. So I'm sure they were glad when we left. We never moved the thing once we got it there, but it was there, and it was an exception. I was never

Captain Karl Pister, Civil Engineering Corps, USNR, July 1969

invited back to the Lair of the Bear. But it was an interesting experience. The kids had a wonderful time up there, of course.

Colleagues, Tom Hughes and Nestor Distefano

Pister: The other thing that I want to call attention to is in July of that year I hired as a research assistant, a new graduate student who was working at a company called Electric Boat in Connecticut. Electric Boat made nuclear submarines. His name was Tom Hughes, and Tom will figure very substantially in other parts of this history. Tom was a very promising young researcher whom I hired as an R.A. to come to do his Ph.D. in our division in civil engineering at Berkeley. So he arrived and joined my research group, and we'll say more about him later on.

Another important event is that in the fall of that year, we received a confirmation of the appointment of an Argentinean colleague whose name was Nestor Distefano. Nestor had spent part of a sabbatical here from Argentina before. He was a brilliant, innovative civil engineer who had a great interest in applications of applied mathematics in engineering. We were able to get Nestor appointed jointly between architecture and civil engineering. He's a colleague that I learned a great deal from in some areas and he had a wonderful personality, one of the most incredible senses of humor of anyone I've ever met. He was born of Italian parents in Buenos Aires, so he was fluent in Italian as well as Spanish and English. But Nestor was appointed that year and joined in our divisional activities.

The other thing that happened was that year, I think I mentioned this already, the first SMiRT conference was in the stages of being organized. Remember SMiRT was structural mechanics in reactor technology, the brainchild of a German academic named Tom Jaeger. Tom had visited me at Berkeley earlier. But anyway, the announcement came out for the first SMiRT conference to be held in a couple of years.

Significant Memo to Dean George Maslach, 1970

Pister: As I move along in events in those years, I found a copy of a memorandum in March 1970 that was sent to Dean George Maslach, who was then dean of engineering, from members of the faculty in the Division of Structural Engineering and Structural Mechanics, which was still a division of civil engineering. That memo has a special importance to me because I was the author of the first draft of that memo. It was a memo signed by, I think there were twenty-one members of the faculty in my division, and we all signed the memo. The memo basically said to George, "Well, George, you said you were going to abolish our division, the Division of Structural Engineering and Structural Mechanics, but we're telling you you can't do that." We made reference to I can't remember which regental standing order it is, something about the organization of the Academic Senate that that's left to the faculty, and if the faculty wants to organize in this way or that way, that's their prerogative. So we were organized into a division, and you can't abolish our division, we said.

LaBerge: This was when you were still vice chairman of the division.

Pister: Let's see. I guess I would've been. That is probably why I had the role in drafting the memo. But there were two departments of engineering at the time that had divisions, mechanical engineering and civil engineering. Electrical never did. Those are the three largest departments, of course. So mechanical engineering abolished its divisions, but civil engineering did not. The divisions were started largely to promote graduate work, to make the transition from a department that was effectively an undergraduate department as a consequence of the founding dean of the College of Engineering, Dean Charles Derleth. I don't know if I mentioned--

LaBerge: No, you didn't.

Pister: Derleth had absolutely no use for graduate work in engineering. He felt that you got your bachelor's degree in engineering and then you went out and practiced engineering, and that was that. So he basically did not foster graduate work in engineering, although mechanical engineering had probably the earliest graduate program, and to a lesser extent electrical in that period of time, of which Derleth began in the late 1930s, as I remember. So anyway, we created these divisions, and they were instrumental because they were affinity groups, academic affinity groups based largely on research and the concomitant teaching that grew out of that research. They were instrumental in bringing our Department of Civil Engineering to a level of recognition that in 1966, in I think the earliest study of the National Research Council for the quality of academic doctoral programs, we were rated the number-one civil engineering department in the country. It was largely, in my view, due to the fact that we had these divisions. So we didn't see any reason to give them up. So we wrote this letter. George respected it. He didn't abolish us, but he took away the budgetary authority of the chairs of the divisions and put the budgetary authority in the hands of the department chairman, whereas before each divisional chairman had budgetary authority. We had a budget but we didn't have--

LaBerge: Didn't have the money.

Pister: We didn't have the authority without the department chairman's blessing. So that was that. The division chairman's job basically consisted of making teaching assignments, which is not a small task in itself, and taking the first step in preparing academic personnel cases. So the division chair had to write the recommending officer's letter that went up to the department chairman to be forwarded to the dean. So it was a fair amount of responsibility since we were a division of, I think at maximum, of close to twenty-five faculty, which is comparatively a good-sized department, on other parts of the campus.

LaBerge: What type of engineering did George Maslach do before he became dean?

Pister: George was a mechanical engineer, and I think I mentioned earlier, let me just connect this back, George was one of the early engineering researchers on the campus. In fact, before he got a faculty appointment as an associate professor of mechanical engineering, he was a research engineer on an air force project on low-pressure research. Remember I met George at the College Avenue pool where the project was first located, before moving to the Richmond Field Station.

Summer Stipend Issue

[15A]

LaBerge: I was wondering, because mechanical engineering did abolish their divisions, if maybe that had something to do with it.

Pister: Yes. I think that's probably true. I've never really researched that question, but certainly they were more receptive. I think the chairman at the time for mechanical engineering was Bob Steidel, and incidentally, Bob was my choice for my executive associate dean when I became dean. But Bob was the one who had the responsibility of de-divisioning mechanical engineering, if I may use that term.

While we're talking about George and the administration, perhaps I ought to note here that in the same academic year, that is the academic year '69-'70, I was vice chairman at the time. My colleagues decided that it was time for me to be chairman of the division of SESM, and that would've started in first of July, 1970. Well, I didn't have any hesitation about accepting that responsibility, but I also felt that there was something that was very unfair about the terms and conditions of appointment of the chairs of the three divisions, particularly our division, which had so many faculty. I was aware that the department chairman received a stipend for administrative appointment, but the divisional chairs, even though they were persons that had substantial responsibility for personnel and teaching assignments and all, received no summer stipend for that, even though you were expected to do the work. I remember when I received the letter saying that I had been recommended for appointment as chairman of SESM, I said, "Fine, but I'm not going to accept that appointment without getting some movement on getting a summer stipend for doing this."

I apparently wrote back to George Maslach explaining this, and I said, "I'll do it, but I've got to have some kind of help. I'm not going to do personnel cases and be available all during the summer as if this is part of my job. I'm supposed to do other things during the academic recess during the summer, do my research and so on. I'm not going to do university work and charge it to my research," because I had summer research work to do.

So that went in two ways. I guess I had a friend on the Budget Committee then, Burt Moyer, who was a professor of physics. I remember talking to Burt Moyer about this, and I learned that the Budget Committee members got summer stipends for doing Budget Committee work in the summer.

LaBerge: And this is the Budget Committee of the Academic Senate?

Pister: Yes. Sure. It was not an administrative job and deservedly so. I don't mean to say anything else. But two things about the appointment. Ultimately, I was given--I'll put it this way. I was given an audience with the executive vice chancellor, who was Bob Connick at that time. Bob listened to me very patiently and said, "Gee, that sounds like you make a reasonable case and all." He was very nice. I had a nice chat with him. Lo and behold, I did manage to get a one-month summer salary for being chairman of SESM. I

don't know what happened subsequently, whether that practice was abolished or what, but I started it.

Renegade Professor Pister

Pister: I neglected to say something here, though, for the record I've got to include. When I was division chairman, the chairman of the department was one of my former teachers, a colleague that I greatly respected, Howard Eberhart, who joined the faculty years before I came on board. I got along well with Howard. He taught me in a junior class. So I knew him from the 1940s. Anyway, he told me that when George Maslach's letter recommending my appointment to division chair went to the chancellor's office, the response that came back was, "Are you sure you want to appoint that professor? He is a rebel and a troublemaker."

LaBerge: And who is the one who wrote that? The chancellor or--

Pister: I don't know who that would have been because the--. Whether that came from the chancellor's office, I have no idea. But it came, whether it was ever written down or not. It probably was not written down.

LaBerge: Just a comment.

Pister: Just a comment, because the basis for that must have rested on the interaction I had with Budd Cheit back in the days when I was also on the Campus Rules Committee. As I think I've said already, during that period of time I was certainly a fairly left-of-center faculty member who had very little appreciation for the troubles that the chancellor had to put up with and was outspokenly critical of the administration to the point, I think I mentioned, I joined the union at one time. I think we've gone over that.

LaBerge: Well, not on tape. We haven't gone over it on tape.

Pister: Well, perhaps this would be an appropriate time to talk about that. Why would someone in the chancellor's office say I was a troublemaker and a rebel?

LaBerge: Was the chancellor now still Roger Heyns?

Pister: Yes. The chancellor was Roger Heyns. But the executive vice chancellor had changed from Budd [Earl F.] Cheit to Bob Connick. Whereas I interacted with Budd, I had not interacted with Bob Connick. He didn't know me from a cord of wood at that time, as far as I knew at least. Amusing though later on we'll come to this, but I worked with Bob when he was Berkeley Division chairman, and I was division vice chairman, got to know him quite well, and he and I are good friends at this point in life. I don't think, if he were the one that said that, it was passed on to him, and after all people's behavior changes. But anyway, it goes back to Budd Cheit because at one time, I believe I mentioned, a group of us at civil engineering, I think there were four or five of us, became collectively disenchanted with the campus response to, and poor Roger Heyns as the leader, the

culprit, what was going on on the campus. So we said in protest, we're going to join the union. So we joined the AFT [American Federation of Teachers].

LaBerge: This is in protest to how the students were being handled or what?

Pister: Yes. Just to look back on it, it's hard to know. Certainly everything, I wasn't pleased with all the things the students did. I thought there were some terribly stupid things done by students, and I certainly didn't condone the trashing of property. But not really appreciating the complexity, I think, of the issues that were being dealt with, I felt that somehow the campus response was not appropriate. I can't get into it anymore. I looked back and re-read a piece that I wrote in that period, which I'll share with you to try to understand that better. Just to summarize it at this point, and this comes to me from re-reading that piece, I think I was struggling with issues that I still struggle with today. I saw what was happening at Berkeley and in particular the urgency of establishing a Third World College, because remember, at the end of the Free Speech Movement that was a big issue, the establishment of a Third World College.

But what I saw in there, in re-reading the piece that I wrote in 1969, was the campus simply being a microcosm of the larger issue in society, indeed in the world, of the injustice of societies. The injustice of the haves over the have-nots. The access to power, the use and misuse of power, and interestingly enough, in reading that back, it was, I guess, the kindling of this issue for me that's consumed me ever since then in my own professional career. When I haven't been working on technical work and focusing just on that. I must say after the early seventies, I did move away from that and got much more involved in technical matters, my research again, kind of forgot those issues until I became dean and then chancellor again. But it was something that was kindled in me at that time that has been with me ever since. I think that was the struggle. So if you can't solve that problem, if you can't address that big issue, the natural tendency I guess would be to focus in on some scapegoat, and I think, in a sense, poor Roger Heyns and the campus were my surrogates for this larger issue of injustice.

LaBerge: It was also still Vietnam protests, and I'm sure how the campus dealt with the protestors and your response.

Pister: Sure. Sure. But those issues are so complicated, and unless you've been in a position of responsibility and authority when that happens, you just can't appreciate the complexity of this issue. I had that at Santa Cruz as a chancellor. I never had it as a dean here, of course. So I had in retrospect a much keener understanding of how difficult it is to make any decision, let alone the right decision, when you are faced with these very, very complicated issues. When you have forces at work that cover a wide spectrum, that you're going to find with any issue like that, people who really don't want to resolve the issue. They want to continue to inflame the issue, and then there are people there that are really just issue people. They want to resolve the issue. The complexity of that kind of confrontational dynamic is such that you can't win. You're always going to take a loss. I went through that in my senate experience. So I think I had no understanding of that at the time. My reaction was a typical, in a sense a childish reaction. You lash out at the nearest object, you kick your bicycle. I think in protesting the way I did, I was kicking a bicycle.

The affiliation with the union was an interesting one. I don't know how long it lasted, how long I paid dues, maybe several years. I can't remember any longer. But it didn't take

me long to realize that that was a dead end. I remember attending a meeting and hearing a union spokesman get up and try to encourage us to be members of a picket line in a sympathy strike for some other group, a collective bargaining group of people on the campus, and using terms like brothers and sisters and all, for people that had absolutely no reason to affiliate one with another. The whole language, the style and all really turned me off. That I guess was the beginning and the end of my urge to respond to what I saw as an injustice on the campus by becoming a union member. Now, whether or not that was in a file somewhere, whether or not I don't know. There must have been enough evidence in my meeting with the Rules Committee and perhaps even my visit with Bob Connick demanding a month's salary or whatever that branded me as a trouble maker.

Of course, the other thing might have been--I think I mentioned this too--a department meeting once that I was involved in. Our department chairman at the time was Harry Seed--did I tell you this already?

LaBerge: No, you told me this off tape. So let's hear this story.

Pister: This is interesting--this could have been part of it too. It was during the very troubled times. It would have been right in this period. I don't even remember what--the department meeting had something to do with an issue of deciding who could vote in department meetings. The motion that was going to be presented, which we'd seen draft copies of already, had been prepared by a very distinguished senior colleague, Harmer Davis. Again a former teacher of mine, a colleague of many years, a person that I had a lot of respect for. At least later in my life I did. In fact, I wrote an introduction for his oral history, which was done for the Institute of Transportation Studies. Harmer drafted the motion, and I think I was even sitting next to him in the department meeting. Well, there were enough of us renegade faculty at the time. So when the chairman called the meeting to order, we knew this vote was going to come up. We didn't like it. I, as a first order of business, said, "Mr. Chairman, I move that the meeting be adjourned." Of course you can't debate that motion, and we won the motion. So we adjourned the meeting before it started. [laughter]

I remember seeing Harry Seed, the chairman, outside of the room of the meeting at Davis Hall, and he came up to me and said, "Well, you really did it to yourself. You were really on track to become an academic administrator in the university, but your chances of doing that now have disappeared. You're finished as an academic administrator here." He was probably thoroughly justified in his rage and anger at the moment in making that statement. But alas, his prophecy proved to be without merit!

LaBerge: Right. Well, whatever happened with that vote on who could--

Pister: You know, I don't think it was ever brought up again. I think we--

LaBerge: You squashed it.

Pister: We squashed it. Yes. I don't even remember, I know it had something to do with who could vote, and we thought it was a bad idea, and we said no way are we going to let that happen. So that could have been another factor in my appointment as well. Although Harry and I always got along all right after that incident. He didn't let that, he didn't take that to his grave--poor Harry died a few years ago--because we became colleagues, we

remained colleagues that could work together. He was chairman of the department when I was division chairman. It worked out all right.

Cambodian Spring, 1970

LaBerge: Well, in any case, your appointment went through to be the chair.

Pister: Right. My appointment went through. So I was chair in the year '70-'71, and I noticed during that year I even sent a letter to *Civil Engineering Magazine* about the Vietnam War. I have a copy of that.

LaBerge: Okay. I'd love to see it.

Pister: We should look at that again.

LaBerge: Because in the spring, May '70 is when the Kent State incident and the Cambodian invasion happened.

Pister: Yes. Right. That was Cambodian spring. I remember I was teaching. I have two recollections of that period. I was teaching a graduate course in my department. I had a very mixed group, there were some foreign students, some domestics in it. A small group, maybe a dozen students in all, and we spent more than one session talking about the Cambodian invasion and the whole Vietnam issue. We didn't turn it into a seminar on that as some people did. But it certainly was on the minds of students, of many students at least, even on the north side of the campus, which often was pretty much shielded from things that were going on elsewhere on the campus.

LaBerge: When you say on the north side do you mean the--

Pister: The engineering, the northeast part of the campus. Yes.

The other thing I remember, these things, odd things stick in your mind. I seem to recall that in that Cambodian spring there was some person in Letters and Science that enrolled and got credit for fifty-six units because there was some kind of strange moratorium on units and grades or something like that. To this day I don't know how that could have happened, but at least that's what the *Daily Cal* said, I think.

Milestone Professional Year, 1971-1972

Pister: The year 1970, apart from what we just mentioned, the really serious issue of the war, was a precursor to the next year, '71-'72, the academic year that really was, I have to say, a milestone year in my professional career. It was in a number of respects, and I'd like to talk about some of those things right now. First, professionally, I note in June of 1971, I was appointed to the editorial board of a new journal, *Computer Methods in Applied*

Mechanics in Engineering. This was edited by my friend in Stuttgart, John Argyris, and that was my first editorial board appointment. That has proven to be a very, very well-respected archival journal in my area.

The next thing in that year was that in August of 1971, I attended as a participant, as a lecturer, a NATO advanced study institute in Lisbon. NATO for a number of years sponsored advanced study institutes in Europe in a range of subjects. This one was in the area of mechanics and computational mechanics, and I was part of a team of, I think, we were all--no, we weren't all Americans; there were some English as well. I gave a series of lectures in continuum mechanics. It was a two-week institute. We'd have lectures during most of the day and then were free in the evening. Rita went with me, and we stayed in a really lovely, little, modest hotel on the edge of the Edward the VIII Park, I think, in Lisbon. It was a lovely place.

It turned out that Rita was the senior visitor spouse present. None of the other lecturers had a wife senior to my wife; I don't know how they determined seniority. There were some other wives there. I would be remiss to say that she looked older or that I looked older, but anyway, so why is that important? Well, as a consequence of that, she had a car and driver to take her wherever she wanted to go in Lisbon. So it was a thoroughly wonderful experience first of all, to meet engineers from around Europe. Virtually all of the European countries were represented there, to get to know these folks, many of whom I knew already, but some of whom I didn't, and have become friends and colleagues that I associated with over the last thirty years. It all started at that institute. After the institute we went on to Berlin where I gave a paper at the first SMiRT conference. That was our first visit to West Berlin. Of course, that was a memorable event, to have gone to West Berlin and to become acquainted with that very tragically divided city.

The second thing about that period of time was that I made new and reinforced old scholarly contacts with colleagues in Europe: many flowers grew out of that over the years in terms of students that were exchanged, visits exchanged and hospitality here and there. It was really the beginning--well, not the beginning, because it started back in the sixties when I went to Italy and Poland and Ireland, but it really enlarged and gave us a broader appreciation of the international community of scholars in one's field. Even before the days of the computer, there was this real sense of community among people in the same field who had similar research interests, that could get together and talk about their problems and what they were doing. And then at the same time to have some fun together, to socialize. So it was a wonderful experience.

LaBerge: I have jotted down from when we talked about that before, something about structural mechanics and reactor technology. Is this a new research field?

Pister: Yes and no. Well, that's SMiRT.

LaBerge: That's SMIRT, okay.

Pister: Basically it focused on the use of structural engineering and structural mechanics, the methodologies and the sciences of those fields, their use in the design of nuclear-powered containment facilities primarily, to a certain extent the reactor design itself, the problems of loading in the fuel rods and the containment vessel. So that in a sense it was a new area of application, because nuclear power was just really coming downstream.

Academic Senate Committees

Pister: The next thing I'd like to mention in that academic year, '71-'72, was that in addition to being chairman of the division, I was appointed to the first really significant Academic Senate divisional committee at Berkeley. I had been previously, I think I mentioned being a member of a Library Committee, which was then chaired by Jim [James] Hart. That was a wonderful experience. But it was a committee that made recommendations that may or may not have been taken seriously by anybody else. It was, I remember, a wonderful social event, because we always met for dinner at the Faculty Club, and Jim was a wonderful chairman. So this new committee that I was appointed to was the Committee on Educational Policy of the Berkeley Division.

LaBerge: How do you get appointed to committees?

Pister: The committee appointments to a divisional senate committee are done by the Committee on Committees of the division. You may recall in the senate structure, the Committee on Committees is the only elected committee. That committee then appoints members of all the other divisional committees. So I was appointed to CEP at Berkeley. The chairman that year was Brendan OHehir, professor of English. It was a very, very interesting experience for me because we had some serious issues. I think this year would've been Al Bowker's--

LaBerge: First year.

Pister: First year, or we can check on this, but Al was the chancellor, and we had a range of issues that included the--what's the right term, the decommissioning of departments--the abolishment of departments, and we marveled at the ease with which Al managed to do these things.

LaBerge: Was one of them criminology?

Pister: The School of Criminology was one. The decorative arts department [Department of Design] was another. Oh boy, I think there was a special department created for a faculty member whose name escapes me now. She and her husband were both on the faculty at that time. Yes. Sociology or demography were the fields, but anyway, there were some unusual things. I remember we talked a lot about how the chancellor was manipulating things and had little sympathy for Al Bowker in the way he was managing things. That will come back to haunt me later on in another year or so. The other thing that was interesting about that committee, there was at least one real activist person on the committee, and I can't remember her name. She was a professor of German. Gosh, if I were characterized as being a bit left of center, she was really left of center at that time, and so every issue was like a left-right issue for her. But it was a year in which I gained--

[15B]

Pister: I don't think, I certainly didn't ask to be appointed. In a certain sense and at one point, when we talk more about the senate later on, it's very much like exercising not only your

right, but your responsibility as a member of a community, that is the right to vote, for example. The need to see privilege and responsibility as complementary. Certainly, the University of California enjoys, the faculty enjoy a substantial amount of freedom and individual opportunity to pursue things without constraint. The personnel system is, I think, the best in the country in terms of its fairness, but the price of doing that is an engagement of the faculty in tasks that often are not necessarily valued or seen as important to an individual. So it's been a tension all along, and if it isn't respected and implemented properly, the whole system of shared governance will fall apart. I wrote about that when I became the chair of the Academic Council. I want to come to that at that period. So that was a year of learning for me in that '71-'72 year.

Offers from Washington State and UC Irvine

Pister: I also would have to mention that I had an opportunity to become the dean of engineering at UC Irvine. I certainly wasn't looking for positions. I'd been asked if I were interested in being the head of civil engineering at Washington State, which would've been a backwater decision for me to make. But the Irvine deanship in the fall of '72 was a different matter. I thought that I ought to go and have a look at that. I went down to Irvine. The founding dean of engineering at Irvine was a person named Bob Saunders whom I had known here at Berkeley. He was a professor of electrical engineering at Berkeley. He was a person that I respected. I'd been on committees with him in engineering, and I liked him. His interest and enthusiasm encouraged me to go down and consider being his successor. So I made the trip to Irvine, was well received by its faculty and students, and everything looked interesting to me. It was a totally different scale, of course, from Berkeley and at a very different stage of development as opposed to engineering at Berkeley. So I came home, and I received a call from Dan Aldrich--

LaBerge: Who was the chancellor.

Pister: Who was the chancellor then. I knew Dan by virtue of the fact that--how did I know Dan? I thought I met him at regents, but I hadn't been going to regents. Anyway, somehow I had met Dan along the way. So I received a call from Dan, and Dan was a very smart guy, and he said to me, "Well, you made a good impression here. Is there any sense in going any further with this?" Saying, between the lines, why would you come down here from Berkeley at this point in your life? I said, "I guess not, Dan." So I didn't consider the deanship at Irvine any further.

In retrospect, I'm delighted. I should say that here as well as other points in my life, before I made that decision or response to Dan, I had a talk with my mentor, John Whinnery. I still remember going to John's office and telling him about my visit down there. John said to me the same thing that I said to a number of my younger colleagues when they talked to me in the same way. He said to me two things. "Well, is there anything that you're not satisfied with at Berkeley? Do you think you could do better somewhere else?" "No, of course. I am perfectly satisfied." The second thing he said was, "There will be opportunities at Berkeley for you." So I think that was a very helpful bit of

advice, which I heeded. So I didn't go to Irvine, nor did I leave for anywhere else during those subsequent years until I went to Santa Cruz.

Faculty Interfaith Group and the Irish Mafia

Pister: Some other things happened in that period that I'd like to mention, I had been attending two interesting groups of faculty outside of the university. I don't remember who really initiated this. It was certainly, probably an outgrowth of the troubled times at Berkeley. It was best characterized as an interfaith group of faculty. Maybe there were a dozen of us. I'm trying to think. The members were, oh, Burt Moyer, the professor of physics, was part of it. I had met Burt earlier. He was a Presbyterian, active in the Presbyterian church, and I think I had met him way back in my grad student days when I was attending First Pres. church here. But I hadn't really talked to him much since then. We became reacquainted as colleagues here later on. There was an Episcopalian priest, Japanese American, Shunji Nishi, who taught at the Church Divinity School of the Pacific. There was a Jewish colleague, Sam Silver, who was director of the Space Sciences Laboratory. I'm trying to think of the, it must have been Bob Bellah who's done a lot of work in sociology of religion as part of that group, or Charles Glock. I can't think of which one it was now. Anyway, it was a really interesting cross-section of people who were meeting and trying to understand some of the issues of the day, not only in the university, but in our society, from the different faith perspectives they represented. I really valued those meetings.

LaBerge: Did you meet for dinner or something like that?

Pister: We met after dinner at somebody's home. I wish I could remember--

LaBerge: You gave me a couple of names, Bill Bouwsma, was he in it?

Pister: Bill Bouwsma was in it. Yes. Sure, we should not forget Bill's name. Yes. Bill was a historian of the Reformation, as I remember, among other things. It in a sense, kind of helped temper some of the terrible tensions that many of us felt at that period of time, to see other colleagues that you valued for their academic expertise, dealing with issues that were essentially cutting across everything in our society.

The second group at that time that started earlier was a group called the Irish Mafia. I don't remember where the name came from. Although I was often involved as a kind of a co-leader, the real leader was a professor of mathematics, Steven Diliberto. The senior member of that group was Professor Ray Sontag from history, who was probably the most venerable and respected Catholic academic on the Berkeley campus at that time. But he was soon joined by the eminent scholar John Noonan in the law school. There were other colleagues whose names have now escaped me. There might have been a dozen or fifteen of us that were all members of the faculty and all Catholic. We met and talked about a lot of the issues that really cut across the two venerable institutions, the church and the university, issues of authority and obedience and responsibility. In that, we reflected, I think, some of the tensions and problems that were confronting [Pope] John XXIII when he created the Vatican Council.

So that was kind of the focus of a lot of our discussion, and it was tremendously illuminating and helpful to me. We had lunch once a month at the Faculty Club, and we often invited outside speakers to come in and talk to us. At that time the present bishop of Oakland, John Cummins, was a young priest. I remember John coming to the meetings on a fairly regular basis, taking part in them. I also remember later on we had the famous--he was a cardinal archbishop in Belgium, Cardinal Suenens who was one of the major figures of the Vatican Council.

We entertained him at lunch. We had a famous French theologian, Etienne Gilson. I still remember the exchange I had with this guy. Here I am a professor of engineering. What do I know about philosophy or anything like that? I have no idea what he was talking about at the time. But I made some comment. "Well, you know, there are some of us that are Catholic that really wonder about some of the things the Pope does and whether or not they make any sense." He looked at me, and he said, "Yes, we call those people Protestants." I thought that was quite an interesting response to my plea that we needed a little more democracy in the church. Anyway, I mention these things because those two groups were part of undercurrents of intellectual intercourse at Berkeley that I thought at the time were not only interesting, but they were very helpful in keeping one on a halfway stable course.

I might say that the Irish Mafia in the very early days of the founding of the GTU [Graduate Theological Union] often had people from the precursor to the GTU, the scouts that were coming up here. Particularly, I remember a Jesuit, Joe Carroll, who was coming up here buying fraternity houses for the Jesuits to move into to create the Jesuit School of Theology at Berkeley. Joe used to come to these meetings regularly. So it was just a wonderful group of people. I might add in retrospect I think, all male. We did have a visiting faculty member, a sister of Notre Dame. I never know whether to say Notre Dame [French inflection] or Notre Dame, but in this case she was a very well-known sociologist whose name escapes me. [Sister Augusta Marie]

From time to time there were religious on the campus doing Ph.D. work. I remember there were a couple of IHM, Immaculate Heart of Mary, sisters that used to teach at Corpus Christi [School] down at Oakland. One particularly whose name escapes me, is now a faculty member at Georgetown. She was a student of Neil Smelser's, and I still remember going to a party that she had when she received her Ph.D. and seeing Neil there. Neil and I had since long ago been good friends. But it was a wonderful period of time for this kind of intellectual activity in spite of the troubling times for the campus and the world.

LaBerge: What effect did any of this have at home, like with your children and with your wife? I mean, did you talk about this at home?

Pister: We talked about it incessantly at home, because while this was going on on the campus and all, our kids read about it. We talked about both the Berkeley scene and the church scene. My wife and I were very much caught up in that. She at the time was the principal of our high school of religion, it was called. This was the CCD program, Confraternity of Christian Doctrine program. We had school buildings in our parish, but we had no nuns. So the lay people were the teachers, and Rita was the principal in that school, the high school I should say, not the grade school part of it. Indeed, I taught for her as one of her faculty members for one year, I think, my sabbatical year when I was in the Miller

Institute. I gained a deep appreciation for the complexities of teaching high school kids, particularly kids who didn't necessarily want to be there. [laughter]

LaBerge: Oh, absolutely not.

Pister: I tried to relate to those kids when I was teaching mainly graduate students, and then to go there at night and teach those kids. It was a very challenging experience. I don't know if I mentioned this to you before, but I remember one night in particular I had an unruly group of kids. They just wouldn't shut up. There was one kid that I remember that was the son of our neighbors, a really good friend of ours. But he was just raising hell. I shouted at him. I said, "If you don't shut up, I'm going to open that desk top up and stuff you in the desk and close the top."

LaBerge: Did that get back home?

Pister: He is now a physician somewhere. [laughter] I don't know where. His parents have moved, and I can't ever forget that one. The other thing I can't forget about that night, Germaine, was that I had asked a guest lecturer to come, a young woman, a wonderful young woman who was a member of a lay organization called the Grail.

LaBerge: I remember the Grail.

Pister: You know the Grail. They were lay women who lived in a community and did all kinds of wonderful things without being professed. Anyway, I had met her at some event, and she was so impressive that I thought she could come and talk to the high school kids. I no sooner tried to shut this kid up in a box and calm the place down, and I said, "Okay now. So and so's going to come in and talk to us about love." [laughter] I'll never live that down. I think she had a much better impact on the class than I did. I had trouble relating to the kids even though I had teenagers myself.

LaBerge: Right. It's different to have a class.

The Extended University under Vice President David Gardner

Pister: It's different. I have great sympathy for people that deal with middle school and high school kids. It's a tremendously challenging experience.

Well, let's see. In that same period some other things that I should mention. I see that in May of 1973 I wrote a letter to Dave Gardner concerning the Utah presidency, which means that Dave was already I guess--I'll have to go back and check--

LaBerge: He maybe was already president or becoming--

Pister: I think he must've been, he was on his way to the Utah presidency. I'll pick up that '72-'73 year. I said in '71-'72, I was on the Committee on Educational Policy at Berkeley. Well, in the '72-'73 academic year really the roof fell down in terms of my commitments. What happened in July '72, I moved from being a member of the CEP at Berkeley to

being chairman of the CEP at Berkeley. But at the same time, thanks to my research colleague Boris Bresler, whom I've mentioned already, Boris was a member of the universitywide Committee on Committees. The universitywide Committee on Committees appoints the committee members for the universitywide Academic Senate. Boris was on that committee for that year, and he was instrumental in nominating me for the chairmanship of the University Committee on Educational Policy at the same time.

LaBerge: So you were on both.

Pister: So I was on UCEP and CEP, if it's okay to use those terms. By virtue of the fact that I was chairman of the University Committee on Educational Policy, I became a member of the Academic Council for '72-'73. The chairman of the Academic Council that year was Sally Sperling, who was a professor of psychology from Riverside. I mention that because not only was Sally a tremendously effective council chair, tremendously well organized and really an inspiration for shared governance, she was really the first female academic that I had any contact with other than casual contact on the campus. In the seventies engineering had no women faculty members. So it was an opportunity to see a female colleague really doing a wonderful job--I'm sure that burned into my brain somewhere and affected my whole view of women in the academy later on. She was such a wonderful inspiration.

I had these two chairmanships, and then I should add the third one that I inherited because it connects to my letter to David Gardner. By virtue of being the UCEP chair, I was also chairman of a group called the Coordinating Committee on the Extended University, CCEU. The role of that committee was to deal with the shared governance issues that were a consequence of President Charlie Hitch's creation of the extended university. Perhaps I should recall that Charlie Hitch, I think, whatever his motivation at the time, was certainly foresighted in seeing that the university ought to try to expand its access base by creating off-campus sites and going to year-round operation or at least a form of year-round operation. So there was some state budget support garnered for this. This was a consequence, by the way, of an all-university conference on the extended university, which Charlie designed or asked for. I don't know the right verb there. So the extended university came into being.

It got funded, but the problems of off-campus sites and the creation of perhaps new courses and curricula that would fit in this extended university model presented a challenge for shared governance. So I was to be the senate representative, because there were actually some resolutions passed, senate resolutions passed that designated the Academic Council as the consultative body to deal with curricula and degree issues for the extended university. You see, the regental delegation of authority to the senate for supervision of courses, curricula, degree requirements and admissions, that was done through the divisional structures of the campuses. But this extended university created a new kind of an instrument that required a different form of consultation, and the council through this committee that I chaired was given that responsibility.

All that connects to David Gardner because David was vice president of the university with a responsibility for the extended university. I had not met David before then. But I remember well arranging to have a meeting with him. We had lunch at the Faculty Club some time in that 1972-73 year. This was the beginning of getting to know David and seeing right away that here was a person that I really respected and who was marvelously

articulate and who, as far as I'm concerned, got to the point right away. You could trust what he said. So we struck up a very warm friendship during that period. I expect then when I learned he was leaving to go to Utah that I wrote this letter of congratulations saying it's our loss, with no appreciation for what was going to happen later on when he came back.

I see there's a letter that I wrote to him concerning the discussions we had about the extended university, expressing my pleasure in the quality of the relationship that we established during that year. The extended university, I might add for the record, had a very short life. When the governorship changed, Governor [Ronald] Reagan withdrew the funds for the extended university. So it pretty much disappeared.

LaBerge: So this is different than Extension.

Pister: Yes. Absolutely. Extension had no role in this. This was a precursor of what has happened now with campuses offering, you might say, year-round instruction through enhanced summer sessions. But it was done in a different modality in that it was a universitywide thing. That's why the universitywide senate got involved in it. It wasn't to be a campus-based thing. I think the only vestige of this extended university is the Ventura satellite campus of Santa Barbara. But that's now a wholly owned subsidiary of the Santa Barbara campus, but in the beginning it was not. It existed and had its authority from the Academic Senate in terms of senate responsibility through the statewide Academic Senate.

Where Does Tenure Reside?

Pister: The only thing I could add here, just to conclude this '72-'73 session, would be to note that one of the critical issues of that year was the FTE [full time equivalent] problem at Riverside and Santa Cruz. There was a real problem of being over-resourced in terms of faculty for the enrollment. Remember, Santa Cruz was going through a terrible trough because of the troubles, the murders in the Santa Cruz Mountains. While this started as a highly selective campus, it really lost its way, and Riverside hadn't lived up to its expectations.

So we had serious discussions with Chet [Chester] McCorkle, who was Charlie Hitch's vice president, over such issues as where is tenure in the University of California and what should we do about reducing the faculty at these over-resourced campuses. How can we do that? I remember well going through some very difficult discussions about those issues, about what to do with faculty.

LaBerge: And what did you do?

Pister: Well, we made recommendations about the process that should be respected, and I can't remember now who was General Counsel then, but I know the issue of where is tenure in the university went to the General Counsel who opined on the matter. Those are issues that have come up again in the life of the university, but fortunately at that time I don't think anyone really lost tenure nor were there any terminations.

There's one more thing I should mention in that period too, in connection with my chairmanship of the University Committee on Educational Policy. At that time Angus Taylor was vice president for academic affairs. Angus was a great senate person. He'd been chairman of the Academic Council, and he loved the senate and loved to be involved in senate work. So Angus came to all of our University Committee on Educational Policy meetings, which I chaired, and Angus dutifully would make a short report, and he would just sit and watch things. Angus told me this--maybe he told me this on the spot one time--and we laughed about it in later years because he and I became very close friends. He told me on one occasion, he said, "Karl, you are the most suspicious faculty member I've ever met. Suspicious of the administration." He evidently picked up in the questions or comments that I made at these meetings that we can't trust Hitch and his minions at all. So Angus made this comment to me. I think as I might have mentioned, but I'll repeat it again. Alas, I learned from Angus that he was one of the persons responsible for my going to Santa Cruz!

Creation of Department of Electrical Engineering and Computer Sciences

[Interview 9: February 21, 2002] ## [16A]

LaBerge: Well, last time when we were finishing, we touched on your service on the Committee on Educational Policy, both at Berkeley and for the university as a whole. You had a few things to add?

Pister: Yes, in thinking back, with respect to the Berkeley Committee on Educational Policy, there are a couple of interesting points that I'd overlooked before. Perhaps the most significant one was the referral to the Committee of Educational Policy of a proposal of Chancellor Bowker to move the Department of Computer Science from Letters and Science into the College of Engineering, particularly into the Department of Electrical Engineering. Actually, in retrospect, I'd have to say, and knowing Al Bowker much better now than I did at the time, that Al had already absolutely made the decision this was going to happen, and this was purely a pro forma move on his part. I admire his administrative skills. He was a person of few words, but he got things done. [chuckle]

I have to add, to characterize him best I would go to [UC Santa Cruz Chancellor Robert] Bob Sinsheimer's autobiography. And Bob sat with him during the years they were both chancellors, of course. And in this chapter, the Club of Nine, describing the chancellors, he referred to Al as a "Buddha-like figure [laughter] who said very little, but when he spoke everybody listened for, 'everyone knows that Berkeley is the University of California.'"

I learned a great deal about Al, now in retrospect by thinking back about all the things that happened on the Berkeley campus, while he was chancellor. He had a very interesting side. But at any rate, referring to this move, I think he had brought in people from outside to look at the issue. In retrospect, he did exactly the right thing, but, being the chairman of the senate committee, of course, we felt obligated to find reasons why it shouldn't be done. I remember Tom Everhart--who later went on to become chancellor at Illinois and the president of Caltech--was the chairman of the Department of Electrical

Engineering at the time. And, he appeared before the committee, and I can't remember who else.

But at any rate, I don't remember exactly what we recommended, but fortunately the relocation of the department took place. Electrical Engineering was renamed Department of Electrical Engineering and Computer Sciences. Plural. Because electrical engineers who were in the Department of Electrical Engineering but were interested in computer science didn't want to lose their identity, just because these new guys were going to be brought in. So there had to be a plural, Computer Sciences, to represent the two perspectives of computer science, that were going to be present in the department. It was a very significant move, and helped to build a very, very strong program in computer science at Berkeley, which I learned to respect a great deal when I became dean of engineering.

Diaries of the Faculty Work Week

Pister: The second thing I'd like to add to that period, was a letter discovered in the files [unfolds a letter]--that goes back really to 1972. And it was a letter from my predecessor chair of the University Committee on Educational Policy, Ralph Turner, who was from UCLA as I recall. And it was a letter to members of the Academic Senate who were randomly selected to deal with the issue of what is a typical work week for a faculty member. There's always been, of course, a perception on the part of the public, and particularly among the elected officials, that university faculty, particularly faculty of research universities, live very strange lives that are disconnected with legitimate work.

LaBerge: [laughter] I remember Jerry Brown's comment about how faculty didn't need a raise because they got psychic income.

Pister: Yes, yes, right. We lived on the psychic rewards from not having to appear at eight o'clock in the morning and take fifteen minute breaks during the day, and things like that. So, the legislature off and on, and during one period in the late seventies, really came down hard on this issue. I'll say something a little more about this subsequently, but this was an earlier attempt in 1972 to deliver a series of autographic chronologies, or autographic chronicles of the work week of faculty members. In other words, actual diaries of the work week. And, I, apparently, was one person randomly selected to compile one of these diaries.

LaBerge: This was throughout the entire university?

Pister: Yes, throughout the university system. And I noticed that my response was that "I'm not in sympathy with the concept of a faculty diary, and therefore must decline your kind invitation to put into words my legendary academic experiences." [laughter] So, this was to the Education Policy Committee Chairman who sent the letter. This was the year before I became the chair of the university committee.

The reason that I mention this is that sometimes things come around to bite you, because later on, this would have been the academic year 1979-80, when I was chairman of the

Academic Council. In the period between this letter that I'm speaking of and the attempt to chronicle the faculty work weeks, and the late 1970s, the legislature must have put budget language in the university's budget. They explicitly required the university to develop a statistically sound sampling procedure that would draw from a sample of faculty in the sample pool, data that would show what faculty did every hour of the day for a week. And we had to conduct this sampling operation every year, analyze the data and report it to the legislature. And I [chuckle] found myself in 1979 having to transmit this report to the Education Committee chaired by John Vasconcellos, who would at that time have been in the assembly. I remember having to try to defend the very slight drop in classroom contact hours from one year to the next that we found from our sample. So it was ironic that even though I had not wished to take part in the early one, I had to defend the latter one. And in fact, in the late seventies, actually, I was selected to do one of these weekly sampling deals, and I did, keep a diary.

LaBerge: Okay, so in '72, when you declined, you could decline. It wasn't automatic.

Pister: Yes, well I suppose you could have declined the other too, but it was--

LaBerge: But if you were asking other people to do it, you really couldn't.

Pister: Yes, that's right. So much for educational policy issues of that time.

LaBerge: [laughter] Do you think that's still going on today?

Pister: No, I don't believe so--. At least the concern about faculty work, the distribution of faculty work, ebbs and flows. I haven't heard it in the years I was in the president's office, the last half of the nineties. I don't think that was ever raised in the president's cabinet meetings. But, it may come up again. Depends on the climate in Sacramento.

LaBerge: Any other people in Sacramento who would have wanted this, besides John Vasconcellos?

Pister: Well, there are all these lone rangers among elected officials who decided at one point or another that it was politically expedient to make this kind of accusation and to deal with it. Perhaps that is a bit harsh. On the other hand, there is a legitimate basis for an elected official to ask what do faculty do with their time. We're paying their salaries, basically. On the other hand, you can turn the question around and ask what do elected officials do with their time.

LaBerge: Yes.

Pister: Because we pay their salaries, also. The best thing is to rest the case on the integrity of the individuals in the system and not to try to impose processes and requirements that really add very little value. And I don't think those studies added much value to the legislature's understanding of what faculty do. Or the quality of educational matters: teaching, research, or service in the university.

Dean Search, 1972

LaBerge: Well, do you want to talk about the search for the dean in '72?

Pister: Right. That's a related academic issue, because it ties, actually, into my own personal career in the university.

Sometime in 1972, I guess it would have been, early summer of '72, Dean Maslach had written to members of the Dean's Coordinating Advisory Council. As a division chairman, I was part of that advisory council. He wrote to us saying that he's really upset because for almost a year now, he indicated that he was going to step down as dean and there hadn't been timely response to his indication that he's going to step down. That is, there had been no outcome from a search committee that would have named his successor. So it was necessary to appoint an acting dean for the 1972-73 academic year. And the acting dean that George recommended to the chancellor's office was Bob [Robert] Wiegel, who was a professor of civil engineering, and who, at the time, was an assistant dean for George. So, his recommendation was accepted, and Bob Wiegel became acting dean in the academic year 1972-73. And I know that I replied to George's letter, that I support the appointment of Professor Wiegel, but I believe the appointment of a dean is an urgent matter in view of problems faced by the college.

LaBerge: What problems did you mean?

Pister: I don't recall what they were, but at any rate that's where it was. There was then a search committee appointed in the '72-'73 academic year, and the chairman of that search committee was Professor Larry [Lawrence] Grossman, who later on became division chair in Berkeley and has been a life-long friend and colleague of mine. And that committee, in July of 1972, wrote to members of the faculty of the College of Engineering a letter asking opinions on issues such as what issues or criteria should be paramount in the present search--do you prefer an appointment to be made within the college or extramurally?-- and then to suggest names of people to the committee that you think might be good candidates. So this was an eight-person search committee.

LaBerge: And were you on the committee?

Pister: No. I was not on the committee. I was the chairman of the Division of Structural Engineering, Structural Mechanics. I wrote a response to the committee. Well, the interesting thing that I learned much later in my life was that I was a candidate for the dean's position in that '72-'73 year. In fact, I was told, the committee's first choice for the deanship, but, I have to say right out, fortunately I wasn't the one that the chancellor appointed.

LaBerge: Did you know you were the choice?

Pister: No, no. I didn't.

LaBerge: You didn't even know you were a candidate?

Pister: No, I said, I didn't even know I was a candidate. I certainly didn't necessarily express an interest in the job to anybody. I was never asked, but I learned that I was their first recommendation. They probably recommended several people. Chancellor Bowker appointed my colleague Ernie Kuh as the dean of engineering in the beginning of the academic year '73. And, in retrospect, as I said, I'm very grateful that that's the way it happened that the committee's recommendation was not accepted by the chancellor, because it gave me another seven years to establish myself as a scholar, to get a great deal of experience in the senate, and a whole lot of things happened. So that, ultimately in 1979-80, even though, again, I didn't certainly want to become an academic administrator, this time I was recommended once again by the search committee. And, well, we can talk about that later on.

LaBerge: And was the chancellor still Chancellor Bowker? Or was it--?

Pister: The chancellor was still Chancellor Bowker. Yes.

LaBerge: That would be interesting to ask him what his thinking was. And whether he thought you needed a few more years seasoning or--.

Pister: Yes, it was a great thing, because it turns out that I went on sabbatical in '73 and it opened up a whole new world for me, of colleagues in Europe that I met. And, as I indicated, I also went back in the Academic Senate in a big way. Perhaps that would be a good thing to mention right now, for continuity. And we can come back to the sabbatical part.

So, as a consequence in not being dean, I--.

LaBerge: And you didn't even know this was going to be the consequence?

Pister: No, no I didn't.

LaBerge: Who eventually told this--?

Pister: Somebody on the search committee told me, because I knew, of course, all of them, through somebody, and they would all respect confidentiality. It was years later, I think, it was after I became dean, actually, in 1980, that I learned this. So it was no great breach of confidentiality. But as a consequence, I went on sabbatical in 1973, and I want to return to that subsequently, but some other important things happened that I can mention at this point.

Vice Chair, Berkeley Division, Academic Senate, 1975

Pister: In 1975, I was appointed the chairman of the Senate Policy Committee, and the chairmanship of that committee carried with it the vice chairmanship of the Berkeley Division. The division chair at the time I was first appointed was Jack [John H.] Raleigh. It saddens me to say the late Jack Raleigh, because Jack just died a week or two ago. But Jack had been vice chancellor for academic affairs or something like that, and I had

gotten to know Jack when I was chairman of CEP because we had to deal with the chancellor's office through Jack. I had known him, not well, but he was a good chairman.

LaBerge: And when you're vice chairman, are you automatically going to be chair the next year?

Pister: Not necessarily, at least I don't recall that that was the case at the time. Although it could have happened that way. But, I was reappointed again in '76, so I had a two-year term as senate policy chair and Academic Senate, Berkeley Division vice chair. But there were some issues there that were interesting and some people that I got to know. The thing that stands out in looking back on people in that committee, I just pause to make an editorial insertion here. The Senate Policy Committee was a committee that basically emerged from the troubled times, from the late sixties. It was a committee that was formed to deal with the urgent matters that came before the campus in the late sixties-early seventies to give the senate an opportunity to consider and make measured, but more rapid response to issues rather than convening the whole Berkeley Division to decide something. So it wasn't an executive committee, but it had certain delegated responsibilities from the division.

And I remember Mike Heyman was one of the early chairmen, Dick [Richard] Jennings might have been an early chair before Mike. Dick was a division chair during part of that time, I know. So it was a committee that had a substantial amount of responsibility, and it was charged to make an annual report of the state of the campus to the Berkeley Division each year. I'm not aware that that responsibility has continued, but I remember giving those state of the campus reports to the division while I was chair.

But in addition to Jack Raleigh, I became acquainted with Bob [Robert] Scalapino, who was a marvelous member of that committee. Later on in my academic life when I was invited to give an address to the first class that was admitted to a new university in Korea, Pohang, Korea, I went to Bob, and he generously gave me an hour's lecture on Korea, a briefing that told me all of the people and all of the history of Korea. He was so gracious and so skillful in acquainting me with people and cultural perspectives that would benefit me in the weeks that I spent in Korea.

Other persons I remember from that period, a wonderfully sensitive and articulate person, Olly Wilson in music, and Allan Sindler in public policy, and I know there are others. And Bob Connick, I should say.

LaBerge: Who became chair.

Pister: Who became chair of the division in my second term of office on the Policy Committee. The thing that I remember particularly about Bob Connick--well I mentioned earlier in this history that Bob was executive vice chancellor when I was appointed chairman of my division in civil engineering, and there was a whole question of whether I should accept the position without some reasonable compensation. I found the letter that I had written to the dean expressing my concern about that. But it was nice to get back to work with Bob because he had been gracious in reviewing the letter that I wrote, in his response to recommend to the dean, George Maslach at the time, that while a person has responsibility as an administrative officer for a subdivision of a department called a division, if it's a sufficiently weighty responsibility, there ought to be some opportunity to use the departmental summer stipend to provide compensation.

LaBerge: Yes.

Pister: And, so it was nice to get back to work with Bob, who had been gracious enough to listen to my case and do something about it. I don't remember all the incidents, or the incident that we debated in that committee, but, one does stand out.

Issue of ROTC during FSM

Pister: During the days of the Free Speech Movement when to be a member of ROTC was like being in the enemy camp in Berkeley, the Berkeley Division, in its wisdom, withdrew credit towards graduation for courses in ROTC. So it put the chancellor in an awkward position, because the senate, after all, has control over courses and curricula, but these young men, who at that time I don't think there were any women, young men who were in ROTC, in good faith had taken these courses, were taking these courses, and ROTC was still a federal requirement for the University of California. So the chancellor had to basically award the credit for these courses so these students who were in ROTC could graduate. I don't think the senate ever challenged the chancellor on that. I don't have any recollection on that. It's just that they didn't want to be complicit in supporting, what, at the time, would have been viewed as "evil ROTC" courses.

LaBerge: Do you remember how you voted?

Pister: Well, this happened a long time ago. When the Berkeley Division voted on this issue, I don't remember how I voted, but I can't imagine I would have voted against it because I was still a member of the naval reserve.

LaBerge: That's right, that's right.

Pister: Yes, and I didn't see ROTC as a bad thing. In fact, I do remember one thing here. I believed that it was far better to have an officer of the United States that was not exclusively a product of the military academies. It was good to have a balance of people coming from our universities in the officer corps.

LaBerge: Sort of like the argument about the labs, a little.

Pister: Yes, exactly right, Germaine.

More on the Ballot

[16B]

Pister: So at one point in the 1976 academic year, I guess, I don't know who was responsible for this, there was a proposal to restore credit for ROTC courses. And, understandably, that would have still been a very sensitive issue, so it was effectively placed in the very

special category of being brought to a mail ballot for the Berkeley Division. It was not something that could be decided on the floor of the division meeting.

LaBerge: What makes something go to a mail ballot rather than--?

Pister: In the senate by laws, there's a trigger, I think it's a certain number of members in a division either petition for this or it could have actually happened on the floor of the division. Under Roberts' Rules the body can pass a motion that says, "This issue will be decided by mail ballot." I think that's probably in fact the way it happened. It was simply decided on the floor of the division that it was not going to be voted on at the meeting, but rather referred to a mail ballot. This happens from time to time, on every campus in every division, on an issue like the university's management of the defense laboratories, and so on.

LaBerge: Meaning, you'll get more people to participate in the vote?

Pister: Yes, yes. So, how does that connect to the policy committee? Well, when you have a mail ballot, much like in our state electoral system, there are prepared statements that go along with the issue. And the policy committee had the responsibility of developing the pro and con statements that would accompany the ballot to decide, should credit be restored for ROTC courses? And, the thing I remember in a meeting, a very heated argument between Bob Connick and another colleague, his name was Jack Kirsch, who was down at the other end of the campus in biochemistry, I think was his field, I don't know what's happened to Jack, we've lost touch completely.

I don't even remember what the argument was but it got really, very, almost [chuckle] violent in terms of their difference of opinion about what it was, who we should choose to write the pro and con arguments, or--. Anyway, it was centered around the credit for ROTC issue. And I--. The best way to explain this is that, I felt that I was kind of in the position that the President of the United States was in the movie Dr. Strangelove, when at this critical moment in that movie, when the plane carrying the nuclear device was sailing over Russia and there was a big argument about whether they should blow the plane up, or just--I don't know what the argument was, but the President grabbed these two guys and said, "Gentlemen, you can't fight in here, this is the war room." [Laughter]

So, I had cut in to say, 'Gentlemen, this is not your fight in this room, we can't let this happen.'

LaBerge: Right.

Pister: And so I calmed them down, and I still remember because I thought it was very gracious of him, subsequently outside the meeting at a later point, Bob Connick said to me how grateful he was that I handled the whole issue, and defused it so effectively. And in a sense, this experience with Bob, working as his vice chairman, really cemented a friendship which goes on today. We have been good friends over the years. He subsequently became Chairman of the Academic Council. I think he was the first Berkeley person after my chairmanship, and we talked about that before he stepped in to the job, so he and I have been good friends ever since.

LaBerge: And were you involved in writing either the pro or the con?

Pister: I don't remember that I was involved in the writing of it.

LaBerge: Any other big issues like that came up when you were the chair of the Senate Policy Committee?

Pister: Oh, I remember there was a big flap over grades at Berkeley. I think I'm placing it in the right years, and not--though it could have been [chuckle] in the CEP years. About that time. Someone did a huge statistical analysis of the distribution of grades by department, by college and school and all. And it was essentially an attempt to understand the issue of grade inflation. Too many people were getting high grades, and too many getting low grades, I don't know. But, I don't know that that went anywhere, but it was certainly an issue during that period.

Oh, there are a couple of things that I might mention in the same period, in the 1970s, apart from the sabbatical year, which I want to return to. Certainly, in 1975, an important milestone occurred in my life. It was the twenty-fifth anniversary of our wedding, and we had all our children with us for a celebration in our home. I have to say that it was a very moving experience for us because we had a very good friend, a Jesuit, Dan O'Hanlon who was at the GTU at the time, who had been a friend of the family for more than ten years, I guess. Dan came to our home and celebrated an anniversary Mass for us in our home. We had many of our friends there, and our children were involved in reading passages for the Mass. And I remember writing a letter to all our children and sending it to them to try to explain to them what it meant to have twenty-five years of happy marriage.

LaBerge: Do you still have the letter?

Pister: We have it somewhere. I should go back and find it, because when I celebrated with my wife our fiftieth anniversary I should have gone back and looked at that letter. So that was an important milestone in life.

Second Fulbright Sabbatical, 1973, in Stuttgart

Pister: The other thing I should mention in April of 1975, I remember going with my wife and a colleague, whose name I mentioned earlier, a Nestor Distefano--

LaBerge: Oh, yes.

Pister: Who is Argentinian. There was a meeting, a professional meeting, in New Orleans, and the three of us went back together on a flight, I can't even remember the airlines now, but it was an airline, a no frills airline-- [laughter] And I remember they didn't serve any food, and Nester brought this incredible lunch with him that his wife had fixed, complete with a bottle of wine and everything. He was such a wonderful colleague, and great sense of humor.

LaBerge: So did he share this with you?

Pister: I think we might have had a little sip of his wine, but this was our first visit to New Orleans, so it was a pleasant experience. The tragedy was that this was April 1975 and, I believe in August of '75, Nestor died from a heart attack. So this was a particularly memorable moment of our lives.

The other event that happened in that year, since I mentioned Nestor, because I didn't know of Nestor's death, in the fall of that year, late summer, Rita and I went to Europe to attend the third conference of the Structural Mechanics in Reactor Technology group, which was held in London. And on the way, we flew to Germany and spent time in Strasbourg and in Paris, then went on to London. So we had a very interesting trip, re-establishing contacts with friends we had made in our previous stays in Europe. But it was in London, in fact, in 1975 that I first learned of Nestor's death.

LaBerge: Is there anything you should say about the SMiRT conference, like what you decided or papers you gave or anything like that?

Pister: Well, no, as I said, this was a conference that basically brought together a wide range of people who had responsibility and interest in the nuclear power industry; the structural mechanics base for it is essentially the analytical and computational basis for the design of reactor vessels, containment vessels. And, since the power industry was really growing in that period, internationally it was an extremely important group of people that got together to exchange information and do their best to improve the quality of the work being done in the nuclear power industry. I was a member of the International Scientific Committee responsible for the program for one of the major divisions. I also gave technical papers at these conferences, so that was the reason for me being there.

LaBerge: So should we go back to Stuttgart, 1973?

Pister: Yes, I think, perhaps that would be a good thing to return to now.

The second sabbatical I had in Europe, some point in the 1972-73 academic year, I guess, I made the decision to take my next sabbatical in Europe at the Institute for Statics and Dynamics of Aerospace Structures, the ISD in Stuttgart, the institute that was headed by my friend John Argyris.

LaBerge: Whom you had met--

Arrangements

Pister: Whom I'd met almost ten years before. So I applied for a Fulbright position again, and was successful in getting a second Fulbright.

LaBerge: Is that unusual for someone to get more than one?

Pister: I'm not sure--

LaBerge: And you can be immodest to tell me.

Pister: I really don't know how many people have multiple Fulbrights. That, of course, enabled me to take my family to Stuttgart, in the late summer of 1973, all save my oldest son, who at that time would have been twenty-two.

LaBerge: This is Francis.

Pister: That's Francis, yes. Francis stayed home. He and his grandmother, actually, lived together in our home while we were gone. But the rest of the family flew to Stuttgart and I don't think we had twenty-three pieces of luggage like we did in Ireland. We were a good deal more organized and we weren't necessarily planning on camping out some place. We were fortunate to have a place, finally, two apartments in a place called in German, Gastdozent Haus, which means essentially, visiting faculty house, roughly translated. And it was a multi-story reinforced concrete structure and there was nothing but concrete in that place. Fairly new, it contained visiting faculty for the University of Stuttgart as well as a core of German academics, called "mittelbau." In a German university the professors are at the top, and everybody else is in the middle, [laughter] there is very little gradation. In our country they would be lecturers, assistant professors, associate professors. At that time in Germany there was no structured distinction among these folks. They were German staff people for the university. So these two groups lived in the [haus], which was right on the edge of downtown Stuttgart, 57 Relenbergstrasse.

The children that came with us, the five children who came with us were distributed [chuckle]. We had our son Kris, who was at that time-- He was ten, he was nine when we left, he became ten. He started in the first class in the gymnasium there and our youngest two daughters, Claire and Jacinta, were in the tenth and eleventh grades, classes at the gymnasium as well. Our daughter Anita went off to Vienna and stayed with a family in Vienna, the Fenz family, Martin and Erica Fenz, who had two young boys. Martin was a student here at Berkeley, he's an Austrian, of course. I got to know him in the sixties, a very fine fellow. We hadn't met his wife, but Martin was interested in having an American person come stay with the kids, teach them English. So Anita went to Vienna, by her lonesome self.

LaBerge: But how old was she?

Pister: Oh, see, Anita was born in '55, so she would have been eighteen.

LaBerge: So just out of high school?

Pister: Actually, right, she was just in between Acalanes High School and Berkeley.

So, Anita went off there, and she took some courses at the University of Vienna. And then our oldest daughter, Therese, went to Strasbourg. And she attended the University of Strasbourg in a program of French language and culture for non-French people. And she lived with a young woman who had an apartment in Strasbourg; that was a story in itself to get Therese located some place.

LaBerge: And was she taking time off of college somewhere else?

Pister: Let's see. Tracy in '70 must have been, yes, because in the meantime Therese had started in the New Mexico Institute of Mining and Technology in Soccoro, New Mexico, so she

must have taken a leave of absence. Yes, she took a leave of absence and went with us and spent most of the year in Strasbourg, but she came back early.

So we basically established ourselves in Stuttgart, the Institute where I was centered that was outside of Stuttgart in a community called Vaihingen, which was the site of the old Technical University of Stuttgart. And the main university at that time was downtown.

LaBerge: And is this where John Argyris was located, too?

Pister: Ah, yes. He was out in Vaihingen, the institute was out there. I had to drive out there each day from downtown. I had mentioned that earlier in 1973, I had gone to Europe by myself and picked up the car.

LaBerge: Oh, this is a new car?

Pister: Yes.

Culture Shock

LaBerge: Tell me about the new car. [laughter]

Pister: We bought a Volvo station wagon in Walnut Creek, to be delivered in Frankfurt.

LaBerge: Oh, okay.

Pister: So, I had gone over already to Stuttgart, to Frankfurt, picked up the car, driven it to Stuttgart then came back here. I can't remember exactly, there must have been a meeting that I had attended.

LaBerge: Right, you didn't just go to get the car.

Pister: Yes, yes. It must have been a SMiRT meeting in Berlin. I'm quite sure that's what it was, yes.

So then, we had a car in Stuttgart when we arrived, a Volvo station wagon. The experience there in Stuttgart for the family and for me, professionally was a very interesting one. It had its ups and downs, to be sure. Let me say this, the first thing that you come to grips with, this was our first experience living really in a linguistically and culturally different environment.

LaBerge: Because in Ireland--

Pister: Because in Ireland, it was culturally different but we shared, well, most would call it a common language. Although there were exceptions there. [chuckle] But Germany was quite different. In the university itself, for example, at the institute where I was, everyone spoke English correctly, although Germans with Germans spoke German. There were so many foreign visitors in this institute that English was the lingua franca. But when you

went into downtown Stuttgart or you're dealing with getting a haircut or whatever, you're clearly living in Germany. Or banking or whatever it might have been. So, I think the most profound moment there was something perhaps in the late fall or early winter that '73-'74 year, when you really discover you're not a tourist and you're stuck here essentially, and it's a very different feeling. And it was almost, I think, universal in our family that we suffered this culture shock. To be sure it was written down in the book of instructions for Fulbrighters in Germany, don't be surprised if you feel this way. But until you really feel it you don't understand it. As I look back on it, it was a very debilitating experience. I can still remember waking up in the morning and not wanting to get out of bed. Just almost return to an infantile perspective of the world. You just didn't want to face living in this strange place. And I know that my wife and children felt the same way. And you had to live through that and it was essentially a self-preservation reaction that we all experienced.

LaBerge: And how was your German?

Pister: My German was enough to get by. I could manage, as the military said, in the economy.

LaBerge: And what about Rita and the children?

Pister: My two girls had studied some German, so they could pretty much get by.

LaBerge: And would their gymnasiums be in German?

Pister: Oh, yes.

LaBerge: Wow.

Pister: For Kris, of course, who had no German, he was just between nine and ten, it was a totally new experience. He knew no German whatsoever. On the other hand, probably, Kris picked up the dialect of the Schwaben better than anybody, anybody else in the family. But it took him several months; he was absolutely silent for a period of time, apparently in the class. But then at a certain point he started to speak, and I think one of the high points of his whole time in the gymnasium--which, by the way was called Eberhard Ludwig Gymnasium, [German words] [chuckle]--the high point of his time there in the fifth class, as it was called, was explaining how to solve a problem in mathematics before the class at the board. And so, he really picked up German quite well, the two daughters got along okay, Rita had a lot of trouble. She had studied Introductory German at DVC [Diablo Valley College] before we went, and I had a continuing study of Italian here; when we went to Germany, I was just finishing my Italian 5 or 6 course, and I had neglected my German, which I earlier was much more fluent in than Italian. But, it's less the language than just really not understanding how to live in a different country. How do you go to the grocery store, how do you check out of the grocery line, working in that part, how do you do the simple things in life.

LaBerge: And it's hard to ask somebody, too, how to do it.

Pister: Yes, although many of the Germans spoke passable English, there were these moments. [chuckle] I remember parking my car, it was a weekend one time, parking on one side of the street to get out and mail a letter at a letter box at the other side of the street. This

German guy came running up to me and said, you can't park in that place, just really giving me trouble, why this guy--

LaBerge: And you still don't know why probably. [laughter] Or when stores are closed--most stores are closed Sunday or things like--

Pister: Oh, yes, you have to learn a completely new style of life. We did our shopping downtown, that is the grocery shopping downtown. Our grocery shopping was typically in either one of the two major department stores in Stuttgart, which were the Kaufhof or Hertes. And these department stores--and this is typical not only in Germany but in other European countries--frequently, the basement of a department store is a grocery store. And, so you'd have to drive downtown, park in a parking structure, if you're lucky, because there's no parking downtown except in parking structures, then you'd go into the department store, into the basement, buy all your stuff and you'd have to bag it yourself in plastic bags, and haul it--

[17A]

Pister: --haul all your stuff back up to the parking structure, stick it in the car. This was a real experience. There were a few neighborhood stores in the area; where we lived there was one little neighborhood store, but typically we bought all of our goods down in the basement of one of the big department stores. So it was an experience. And of course, in the early 1970s in Germany there was no such thing as a credit card. You paid cash for everything. I remember being absolutely shocked when, one of my colleagues there went down to buy a used Mercedes, and I said "How did you pay for it?" "Oh I carried the money in my pocket." [laughter] I had forgotten how many tens of thousands of marks he had to lay out, but he carried this in his wallet. And before we left, there was a card initiated by a coalition of banks in Europe called Eurocarte, a Euro card, we called it. It wasn't a credit card, but it was a card which could be used with a check to get cash in the country that you were visiting. You could show this card and write out a check and get some money. The Visa and MasterCard had not arrived yet in the early seventies in Europe. And it was a problem, we had to get money out of the bank each week on a regular basis, and distribute it so that we would be able to buy things.

Research and Colleagues

LaBerge: And what were you working on when you--?

Pister: The research I was doing was really a mixture of doing things still connected back to Berkeley and using the year to explore some new areas. The work I was doing back here in Berkeley was essentially the early work I started in earthquake engineering, in optimal design of dynamical structures. I had a student back here whose name was Debu Ray; Debu was working on his dissertation at that point, so I kept in touch with him. And then, I started working with a colleague at Stuttgart who had been at Berkeley, another Austrian, his name is Kaspar Willam. Kaspar had done his Ph.D. here in Berkeley with one of my colleagues, but I knew him. He was an office mate of mine in Stuttgart, and he and I started working on problems characterizing the behavior of concrete, and that led to

a paper later that I presented down in Mexico City. But we had a lot in common, and he not only was a professional colleague but he and his wife, Nikki, who was English, had been in Stuttgart for a number of years at that point and he was absolutely invaluable in helping me with learning to live in Stuttgart.

I should also mention another colleague that I had met here in the year before we went to Stuttgart in the '72-'73 year, a young faculty member from the University of Stuttgart in a different field, different institute, I should say. He was in more traditional civil engineering, whereas I was over in aerospace, and his name is Ekkehard Ramm. He and his wife Annette had been visiting scholars in my department in the year before we went to Stuttgart, so we became acquainted over here. He went back the same time as I did to his position and I to the Fulbright position. They lived outside of Stuttgart in that year in a suburban community. But, he and his wife were also extremely helpful in helping us adjust our lives to the local scene. It's important to say something about Ekkehard because last year I had the pleasure of attending and speaking at a conference in Austria honoring his sixtieth birthday.

So the Ramms, for example, provided us with some furniture and things that we needed even though our apartment in Stuttgart was more or less furnished, it lacked certain things, like closets. [laughter]

LaBerge: And you didn't build them yourself this time?

Pister: No, I didn't build them myself. Later on the Ramms were absolutely instrumental and decisive in helping us through some critical points that we had to go through. So it was really great to have these two--Professor Argyris was always there and certainly he facilitated my stay there, but senior German institute professors have limits to what they do. [laughter] One wouldn't trouble him with trivial--

LaBerge: Banking.

Pister: --things. [laughter] Yes, because it just would have been beneath his experience perhaps or certainly not something you want to trouble him with.

Importance of Cars in Germany

Pister: That year there was a very eventful one for all of us because it placed us under a certain amount of stress that we had to learn to deal with. But lots of interesting things happened too. In particular, some time during the year, we went to a sports show in a convention center in Stuttgart and saw a little camping tent trailer, appropriately called La Boheme [laughter].

LaBerge: I can just imagine what's happening here.

Pister: Yes, you can see it here. This was just amazing--when the trailer was put together as a trailer it wasn't much different than the size of the top of this table that we're seated at. So it was a very small trailer, yet in unfolding on its two longitudinal sides they became beds

that were held up from below. And then there was a set of light aluminum rods that you erected and put a canvas over these and then that canvas connected to another set of rods and canvas to make an outdoor room that connected to the back of the trailer. So all of a sudden this little box of a trailer unfolded into a bedroom that had sleeping on two sides, and a little storage place underneath the two sides for storing kitchen materials and so on, and then an outdoor room where you could set up a table and chairs; the little outdoor room had plastic windows in it and all that. We bought such a trailer. [laughter] I'm jumping ahead but when we pulled into a camp, people would see this little thing and all of a sudden this whole house would emerge. It was similar to the experience we had in our earlier sabbatical with the Commer van; it was a house on wheels. This was a little house on two wheels.

LaBerge: Did you pull it behind your car?

Pister: Yes, but I have to take a moment to talk about that because these experiences that complement the prime purpose of the sabbatical are so profound in their effect on one's life. [chuckle] This trailer that we saw, La Boheme, was actually made in the outskirts of Paris, but the person that was showing it at this particular show at Stuttgart was headquartered in Munich. We decided to buy a trailer, so we went to Munich, drove over there with our car. We didn't do that yet, we learned about buying the trailer, and made the preliminary arrangement to buy it, but the first step, and this is where Professor Ramm comes in, was to put a trailer hitch on our Volvo. We didn't have a trailer hitch on our Volvo. Well, in Germany, anything to do with automobiles is like close to religion in Germany. A car to a typical German is a very very important thing. For example in Germany, if you're parking and you accidentally touch somebody's bumper with your car, I mean that's an occasion for the owner to leap out of the car and examine whether or not you left any dust on his bumper. [laughter]

LaBerge: Whereas we do that all the time.

Pister: Yes, a car is a very precious thing to the Germans, particularly in Stuttgart where there's a million Mercedes-Benz cars around.

But anyway, we had to get a trailer hitch put on our Volvo. Well, this Volvo 145, it was not a terribly common car in Germany so we had to find a place that would put a trailer hitch on a Volvo. And more than that it had to be done consistent with the requirements of this very powerful German agency called TUV--I would have to look that up, [chuckle] forgotten the German for it. Anyone who breathed the word TUV sent chills down your spine because every car in Germany on a regular basis, whether it's annually or bi-annually, has to pass a TUV examination, and these examiners are practically like kings. They can say, "Your car doesn't pass, it needs this or that," and if you don't get this or that done you can't get re-licensed in Germany. It's so important in Germany that there's a whole industry set up to prepare people for the TUV. [laughter] It's like when you have to take the SAT [Scholastic Aptitude Test] you go and get coached on how to take the SAT; they do that in the TUV, at least this is the way it was in the seventies, and a TUV person can decide that your car is basically over the hill and can't operate in Germany anymore; they can just say "Your car is finished." "Aus". [laughter] [German word] "Life is over."

Anyway, so we had to be cognizant of TUV, and that was quite interesting. I think my friend Ekkehard must have been that person that did this. We found a place in Karlsruhe

which was not too far from Stuttgart, and we drove over to Karlsruhe one day and spent the day. He was gracious enough to go with me to leave the car in a place to put on a trailer hitch. It was really a very gracious thing for him to do.

I still remember an incident there that I was just talking to my wife about recently. We were eating lunch someplace and there was a table of German men speaking. I said, I don't understand what they're saying, they're not speaking German. And he said, no, they're speaking the dialect of your grandfather, this was over in the Rheinpfalz. Karlsruhe is at one end of the Rheinpfalz; my grandfather's family lived further north in the same part of Germany. At any rate, so they spoke a dialect that I'd never heard before.

We got our trailer hitch and then Rita and I, one day, drove to Munich in our Volvo with the trailer hitch and purchased the trailer. Of course, the trailer had to be licensed and, again fortunately, the guy we bought it from was good enough to go to the license place. They could have been closed for all you know, and in fact there was some big deal, because there was a long conversation at the window before the guy was finally able to get the license so I could move the trailer. That was quite an event to bring that trailer back into Stuttgart.

LaBerge: How far is Munich from Stuttgart?

Pister: I think about a hundred twenty miles, something like that. It took several hours to get there.

Travels in La Boheme with the Family

Pister: Since we're talking about the trailer, I don't want to give the impression that this is all we did on my sabbatical [laughter] was to take these camping trips. We had Kris and the two daughters from Stuttgart, one from Vienna and one from Strasbourg. I think we all assembled at Easter vacation in 1974, and decided to take off for a little trip through France, because Stuttgart is only ninety miles from the French border at Strasbourg. So we started out from Stuttgart and crossed over into France, I don't remember how far we got, but we stopped, and mind you this was in like, March, so it was pretty wintry. Well, we had not been gone too long before we discovered that we left two of the sleeping bags in Stuttgart, so there were two girls who didn't have any sleeping bags. And we pulled into a camp somewhere across the border, we're heading more south, we were going to go down into Provence, and then go along the Atlantic coast, which we did. But you can imagine, here we stopped the first night--and as usual the driver didn't heed the warnings of his co-pilot, my spouse--and drove far too long into the day so that it's like dusk. Here we finally stopped at a camp on the River Doub, and we have to put the tent up; we've never done this before. Well, not surprisingly, the instructions for erection of the tent were in French. [laughter]

LaBerge: Even though you bought it in Germany, right?

Pister: Yep, it was made in France.

The family at Tuolumne Meadows, 1967

From left to right: Mary Claire, Anne Pister (Phil's daughter), Philip Pister (Karl's brother), Jacinta, Anita, small boy-Karl Pister (Phil's son), tall boy-Karl Francis, Tracy, Karl, Rita, Kris

My wife had a major in French many years ago, and here we have a daughter in Strasbourg studying French language and culture, we struggled through getting the thing up, got the tent up. It had a little two-burner gas stove, along with essential kitchen stuff on a table, and so we were in good shape. Of course, the kids didn't have any sleeping bags. We got through the first dinner and the two girls decided that they would stay in the car. Well, that didn't work out of course. It got below freezing at night, so we all ended up huddled in the tent that night, and subsequently we bought a couple of sleeping bags somewhere in France. But we had a wonderful trip, having gone through this kind of novice period. We learned how to operate things, and we spent time in Southern France, saw the Roman ruins at Arles and Nimes, and went all the way to the region of France, next to Spain, and over into Spain in fact, crossed the Pyrenees at the Atlantic coast, and had an absolutely splendid trip. We visited Carcassonne and we saw the Catalan influence in that part of France. We were there during Easter time, as a matter of fact, and it was just a great educational experience for all of us, particularly the children, to have done that.

LaBerge: Did you bring La Boheme back to the States or not?

Pister: Ah, yes.

LaBerge: You did, okay.

Pister: We'll get into that.

Perhaps, I could continue that travelogue because there was an earlier experience, when we left Stuttgart in the summer of 1974, at the end of the academic year. Therese had already gone back to the United States, she'd come back home again. And Anita stayed in Vienna with the family; she met some guy that she was madly enamored of. [laughter] So she stayed there with the family, and I think she continued to take some courses, and just generally have a good time in Austria. So that left Rita, Kris and our two daughters, Claire and Jacinta, and myself in Stuttgart. And we took a trip from Stuttgart up through Northern Germany into Denmark, and spent time outside of Copenhagen at a city, its name is Roskilde, which is important in a sense--the cathedral in Roskilde is the place where all the kings of Denmark have been buried. And it was right on a fjord where they had raised an old ship, which had been preserved. There was a new university at Roskilde which I visited. It was a very, kind of, new wave educational system where the students ran the institution; it was quite an impressive change from my experience in universities. So anyway, went to Denmark, went across the strait from Elsinore to Sweden. We went across that on a car ferry, and ended up [unfolds a map] at Goteberg, Sweden, which is the home of Volvo. But while in Goteberg we visited a Danish colleague who had been in my department at Berkeley, Anders Losberg and his wife, and had a very pleasant evening with them. Then we turned in our car and our trailer to the Volvo people who shipped it back to San Francisco. We took a train back across, a train ferry, to Copenhagen. It's an interesting thing, you get in the train car and it goes onto a ferry and goes across and connects to a train in Copenhagen, thence to the Copenhagen airport to fly back home. So it was a tremendous experience for all of us.

Lectures in Norway and Italy

Pister: That's not the end of the experiences because there were two other experiences that Rita and I shared while the children stayed by themselves in Stuttgart. The girls were old enough to feel comfortable about leaving them with their little brother. Rita and I had, well, we had one experience together and then one with the children that I would like to mention, because they were both professionally-centered trips that we took.

In late April and in May of 1974, Rita and I flew to Oslo, and from there to Trondheim. I gave a series of lectures at the technical university of Trondheim, called NTH, Norwegian Technical High School. Well, Berkeley civil engineering has had a long association with Trondheim, it dates back to, I think, the visit of one of my colleagues, Ray Clough, who first when to Trondheim in the early fifties. So we've had a number of Norwegian students in our department, and visiting scholars from that institution, as well as students who had come from NTH and done their Ph.D.'s at Berkeley. So there was quite a strong connection between our institution and Trondheim. They invited me to give a series of lectures. Rita and I stayed in downtown Trondheim and I gave lectures during the day and we had wonderful evenings with our colleagues in Trondheim. That was one high point of that trip. The second thing I should mention which connects to something I've already talked about, we also had an opportunity again, I for the first time, Rita for the second time, to be with her cousin in Oslo, with Terje and Grete Vegstein. We had a brief visit with them as well as the trip to Trondheim.

The other trip that I'd like to mention, this would probably have been in early June of 1974, I was invited to go to the Polytechnic University of Milan to give a series of lectures to a group there that I had met in previous years. In particular the closest contact I had there was with Professor Edmondo Vitiello. Edmondo had spent time with me as a visiting research engineer at Berkeley, in the academic year '72-'73 and he actually stayed on. He came during the 1973 year and stayed later in the '73-'74, came back to Milan while I was in Germany. He and Professor Giulio Maier were persons that invited me to come. So what did we do? The family again picked itself up and took La Boheme over the Alps [laughter] and we camped at a camping place in the Italian city of Como, not too far from the Lake Como.

LaBerge: Okay.

Pister: The city of Como sits at the edge of the lake. We had a camping place at the top of the mountain called Monte Olympino, Mount Olympus. And it was a very nice place; the problem was I gave a series of lectures starting in the morning and ending around dinner time; I lectured the entire day to this group.

LaBerge: An entire day.

Pister: Yes, it was what you call in the university extension, a "special course," a short course.

LaBerge: Right, that was it.

Pister: I gave a short course in one day, for which I received some compensation. I remember we had to go to the bank and I got hundred something thousand--

LaBerge: Of lire?

Pister: --of lire for my efforts.

[17B]

LaBerge: Do you remember the subject matter?

Pister: Well, I was talking about the research I had been doing down in Stuttgart on--when we talk about the evolution of my research over the years, we'll talk about it.

But at that point in my career I was looking at the structure of models to model the mechanical behavior of materials, engineering materials. I talked about that particular area of research that I was doing. It was a wonderful experience to meet the colleagues that I had met before--well, Edmondo had worked with me at Berkeley; Giulio Maier I'd met through the SMiRT conferences, and then their senior professor, whose last name was Grandore. Professor Grandore had been at Berkeley and he worked on earthquake problems, so he was known to me, and it was just a great experience. In addition to that, back in the sixties I had an Italian student from, I think he had been a student of the University of Rome who did a master's degree here; his name was Marcello Pignataro, and Marcello came all the way from Rome to attend those lectures that day; I hadn't seen him since he left as a graduate student, so that was really nice to have a chance to see Marcello.

LaBerge: Your memory of names is so incredible.

Pister: Well, I should remember their names, but I get the dates and things mixed up I'm afraid. [laughter]

The only other memorable, well, two things. I remember the night coming back from those lectures, Edmondo drove me back to Como, which was kind of him, since Milan and Como are not right next to each other, they're close. But we got back and, typical of many European campgrounds, at a certain point in the evening they lock the gates. [laughter] You can't drive through. So we had a climb over a wall to get back into the camp, I remember.

LaBerge: But your family was already there?

Pister: Yes, they were already there.

Well, that's not the end of the Monte Olympino story. We had gone out that night and had a huge dinner in some place, Grandore and all these colleagues. Well, whatever I ate was not the right thing because during that night I became deathly ill. Just really serious, GI impact of some kind. I spent an absolutely miserable night, and it was clear the next day that I wasn't getting better, and so poor Rita had to take the car. I said that the place was called Monte Olympino, well it was not Olympus, but it was a twisty road to get down, and she had to drive down and find an Italian pharmacy. She didn't know Italian and the best possible way to explain that her husband was really ill with serious diarrhea, and she needed something to help. Fortunately she was able to get that help, and I got the necessary--.

LaBerge: But meanwhile you stayed back in the camp just being sick?

Pister: Oh yes, I was really sick, I could hardly move. I was really weak by that time. So that was really a bad part of that trip, I remember, these things happen to one in--.

LaBerge: Anywhere!

Pister: Anywhere in life. But it affects everything else that you're doing. So that was the only other major side trip that we took in 1974 period.

Journal Editor; Presentation in Mexico City, 1974

LaBerge: I have some notes about letters you got, but I don't know if you want to do that now?

Pister: Well, I notice there are--

LaBerge: Letter from Dick Shield, notification of election.

Pister: Yes, I was elected a fellow of the American Academy of Mechanics. Dick Shield was, at the time, chairman of my department at Illinois, so that was a pleasant thing that happened.

Let's see what else. [looks through papers]

Another letter in this period informed me that I was made an associate editor of a new journal, the Computer Methods and Applied Mechanics and Engineering. This was a journal that my friend John Argyris and a very distinguished colleague from Brown University, William Prager, launched. So I was pleased to accept that position as an associate editor of the journal.

I think that pretty well covers this period.

We've talked about coming back in 1975 and '76 to the Berkeley campus. There are some other things I could add, just to complete that period of time. The work that I did on sabbatical, part of it at least, led to a paper that I presented in Mexico at an international conference on the behavior of concrete. Professor Argyris and I, and Kaspar Willam collaborated in that paper. So Rita and I, in, must have been the fall of 1976, went to Mexico City to present that paper. That was a milestone event. A related family event in that period that I don't want to neglect is that in May of 1976, Rita and I went to a little small New Mexican town of Soccoro to watch our daughter Therese receive her bachelor's degree from the New Mexico Institute of Mining and Technology. She did a degree in biology at this mining and technology institute, but that was a milestone event. There was an interesting coincidence--the president of the institute at that time was a Berkeley physicist whose name was Sterling Colgate, and--

LaBerge: Someone you had known before?

Pister: I only knew who he was. Colgate was a protege of Edward Teller, and Colgate had worked at Livermore, so I knew his name from Livermore. I don't think I ever interacted with Colgate, but anyway, Colgate was the president of the institute at that time.

Accomplishments of Pister Children

Pister: The other thing that happened is that Therese came back from New Mexico, and in October of that year '76, she entered the School of Education at Berkeley, and subsequently got her teaching credential from the School of Education at Berkeley.

LaBerge: I remember you telling me that she was a teacher.

Pister: Yes, the second. Rita having preceded her in 1948, getting her credential from Berkeley. And actually, to complete that, my daughter Anita, later, got her credential at Berkeley as well. So Berkeley does create some credentialed teachers, but not very many. It's not high on their list of-- [laughter]

LaBerge: Right. Where had Francis gone to school?

Pister: Francis started at Berkeley, I don't remember, would've been--he was eighteen in '69, so he would have started in '69 then. As I mentioned, Francis is a talented musician. In fact, when he went to Acalanes High School, he took part in the music program, he loved music. They had an outstanding music teacher at that time. He took part in all the annual performances, but he was quite interested in choral music and in fact, at his graduation from Acalanes High School, he composed a piece and conducted the piece himself at his graduation. So, he wanted to come to Berkeley. Well, he didn't necessarily want to come to Berkeley, but he came to Berkeley, in the fall, I guess it would have been 1969. It was a traumatic experience for him. The music department at Berkeley was not performance oriented, at that time, I don't know about today, but it certainly wasn't then. And, the general unease of the campus at that time, the fact that he was living at home and had no contacts on campus; he had a very, I guess, unpleasant experience. So he didn't stay at Berkeley, he just, walked out basically. He later went back to DVC and studied music courses, music theory and performance and then actually later on spent a few quarters at UCLA in music, but never finished his degree in anything. So he's largely a self-taught person, but he's quite an accomplished musician.

LaBerge: What does he play?

Pister: He learned to play virtually all the instruments, but his main interest is in arrangement and conducting. He started as rehearsal pianist for, I think it was a Diablo Light Opera Company or the Contra Costa Musical Theatre. He's worked with both groups. And from there he became an assistant conductor, a rehearsal conductor-type, and ultimately, when he was still a very young man, he was given the musical direction role for a number of amateur productions at Walnut Creek in the performance center there. It used to be the old nut house, as we called it, now the Lesher Center. I can't remember how many different musicals he's done, but one of his crowning achievements out there was "76 Trombones," The Music Man, and, I can't remember the man that wrote The Music Man, but--

LaBerge: Meredith Willson?

Pister: Meredith Willson! Thank you.

LaBerge: Well, it's one of my favorites.

Pister: Yes. Meredith Willson came to his performance and our son Francis had the great pleasure of having Meredith Willson compliment him on the performance and he conducted the orchestra for that.

LaBerge: Oh, gosh! That's wonderful.

Pister: Yes. In his home, he has a big picture of himself with Meredith Willson. Then he spent a number of years in Los Angeles; he did a number of amateur theaters there. He's still working on it. He works with the Lamplighters in San Francisco. He's doing a musical with the Lamplighters this year. He did A Little Night Music with them, most recently. So anyway, even though he didn't graduate in music theory he certainly has followed music as his career. Probably the music education here wouldn't have helped that much.

Meeting Assemblyman John Vasconcellos

Pister: Let me see, what else in that period? We're still talking about things in the 1970s, before we conclude today. I note that in July of 1977 I had a meeting. It was senate related and why--I guess I was still policy chair at least connected back to that. I was asked to attend this meeting in Sacramento that was called by John Vasconcellos. I had never met John, I had heard him speak once at the Newman Center here in Berkeley. I met John, and I still remember, I can't place the actual remark, but he said something that reflected on the electorate. I remember I just came right back and said, "Well, John, those are the same people that have elected you." [laughter] So that wasn't necessarily the most sensible thing for me to say to John because later on, I had to face him across the hearing room floor. But, as I mentioned before, despite the rocky beginning, John and I have become very good friends. In fact, I'm going to be attending an event with him next week, and I have always respected his integrity and the principles that he's tried to achieve in the face of impossible political odds. He's a person of great vision and principle, and he's unwilling to compromise these principles. I really respect him for that, and I respected him and told him so when he was pursuing the whole issue of self-esteem, for which he was ridiculed in the press and--

LaBerge: Oh, right, Doonesbury.

Pister: Doonesbury, the comic strip Doonesbury did him in and all. I must say I don't know how you can work with people if they lack self-esteem. It's very difficult, and I think he was right on the track. I remember writing to him and him thanking me for the note that I sent. So he and I have kept in touch. I always visit him if I'm in Sacramento on university business, or lacking that, keep in touch with him by correspondence over the years.

Kaspar Willam and Cabin at Caples Lake

[Interview 10: February 22, 2002] ## [18A]

LaBerge: Well, we yesterday were talking about the seventies, and there were a few things that we missed. So you had some things you wanted to mention.

Pister: Right. I'd like to go back. I know we talked about the sabbatical year in Germany in 1973-'74 and coming back to the Berkeley campus and getting re-engaged with the Academic Senate, Berkeley Division. But there were some other things that happened that were important in my professional life, as well as my life with my family that I'd like to pick up. In 1975, I think I mentioned Rita and I went back to Europe for a brief trip. I took part in a SMiRT conference in London, and I think I mentioned that. But I should mention that also I spent just a short period of time back in Stuttgart before going on to London because I had a joint paper at that SMiRT conference with my colleagues in Stuttgart that we worked on together. We also more or less laid the groundwork for a paper that actually was not presented until 1976 when I went down to Mexico City to a conference on the behavior of concrete.

But it's an amusing incident that connects that conference with something that is entirely unconnected, but related, that is our cabin up at Caples Lake in the High Sierra, because in the summer of 1976, prior to that fall conference in Mexico City, my friend and colleague from Stuttgart, Kaspar Willam, that I'd mentioned already, came over to Berkeley. Returned to Berkeley, since he did his Ph.D. here and worked with me as a visiting scholar for a brief period on the Berkeley campus. But then in 1976, he went with me up to our cabin to Caples Lake. I was still doing a lot of construction work up there because we had only recently been able to reach our cabin in the wintertime, and I was beginning to winterize the cabin with insulation and redoing the entrance and so on.

So Kaspar came up with me, and he worked on the details of the paper while I was doing some construction work. I remember hanging the sliding door, to cover a glass sliding door that we put in, a winter storm door that I was prepared to install. At that time we had no central heating in the cabin, and it got quite cold during that period when we were there. I remember Kaspar sitting in there working on this paper with his mittens on, and I was outside, I think we had a hailstorm during the time we did that, all in preparation to go down later on that year to present the paper in Mexico City.

That Caples Lake cabin has played, I mentioned way back in the forties when I first saw the site, a major role in the life of myself and my family ever since the 1940s. This is just one more incident. After coming back from Germany in 1974, one of our first trips there, it would've been the following summer, I think, of '75, when we went up to Caples in the wintertime with great difficulty. I remember the entire family went down to the Kirkwood cross-country center and rented skis and boots and took a group lesson together to learn how to do cross-country skiing. I'd never put my feet on skis until I was fifty years old. I've since regretted that this took so long, but I certainly have enjoyed the ability to cross-country ski in the wintertime up there. So that was one of the things that I wanted to mention.

Symposium Honoring Egor Popov, 1977

Pister: A second thing that happened just a little bit later was the preparation for and the role that I played in organizing a special symposium to honor my colleague Egor Popov. As I mentioned earlier, Egor was a major influence in my life, having really encouraged me to go on for my doctorate when I was an instructor here at Berkeley and a friend of my wife, and my family over his entire life. A number of us on the campus, and some away from the campus, felt that it was important to give recognition to the contributions that Egor had made. This is back in 1977. So I organized a symposium through University Extension which was basically the logistic arm of the symposium, and we got support from the National Science Foundation. I was able to invite a very fine group of engineers from around the world, from Japan, from Germany and Norway, from all over the United States, colleagues of Egor's that understood his work and were able to show the breadth and depth of research that Egor had engaged in. So that conference took place in August of 1977 and resulted in a very fine proceedings of the symposium that I had the privilege of editing for Egor.

LaBerge: What was his specialty?

Pister: His specialty was structural mechanics in the broadest sense. He originally was much more involved in the mechanics of solids, but he became interested in earthquake resistant design. He developed some very special insights in the improvement of the connections between beams and columns to withstand earthquake loading. He had a marvelous ability to take complex problems and boil them down to the critical simple elements that describe their behavior and made major contributions in earthquake engineering in the last part of his professional career. So that was an important event that I wanted to be sure that was on the record.

Richard Merton Guest Professor, University of Stuttgart, 1978

A second thing I guess that I should mention in this period of time--well, now that we're past the middle seventies--was the planning for a short sabbatical in Germany again to go back and work with John Argyris and his colleagues at the Institute for Statics and Dynamics of Aerospace Structures. So I set the wheels in motion to do a short sabbatical. I had planned to do a sabbatical in the fall of 1977, but that was interrupted and postponed by the illness of my mother. My mother was diagnosed as having cancer in the later part of 1976, and she was hospitalized and had surgery and really never recovered. My mother died in April of 1977. So that delayed the plans for my sabbatical although I had initiated correspondence with Professor Argyris.

Acculturation

Pister: In the meantime, I note from my correspondence files of 1977, that he was successful in having me appointed as a guest professor at his institute, and so I had the title of Richard

Merton Guest Professor at the University of Stuttgart for a period in 1978. It turned out that I took my leave in the spring quarter of 1978. I'll come back to describing that experience in just a moment.

LaBerge: But this time though, it meant you were teaching classes besides doing research?

Pister: Well, not really, because the terms of appointment of this professorship were quite flexible and quite generous. I gave some lectures at Stuttgart, not in classes but basically announced lectures and not a regular class. It would be a collection of people that had like interests in the field in which I was doing research. So that took me back, I believe I went to Stuttgart in March of 1978. I remember that very well because I purchased a car through some sort of a buy-it-in-the-United-States-have-it-delivered-in-Europe-and-then-sell-it-back-to-us program. Okay. I flew to Paris on TWA in March of 1978 and went miraculously somewhere in Paris and picked up the car. Then--

LaBerge: What kind of car was it this time?

Pister: It was a Chrysler Simca. Yes, a normal car this time. No fancy car, no camping plans this time. So I then drove all the way from Paris clear to Stuttgart, kind of replaying that famous voyage that I took from London to the ferry at Holyhead a decade before. When I'm by myself, I have very little understanding of time and distance. Because it was a special kind of a licensing deal, it had a very unusual license plate on it, I remember tooling along a French motorway and having a French gendarme pull me over and insist on looking at my license and passport and all. Of course, I had no idea what he was asking me about, but nevertheless I passed the test.

LaBerge: So did Rita go with you this time?

Pister: No, Rita wasn't with me at this point. We'll come to her part in this story. My friend Kaspar Willam had been kind enough to find a furnished apartment in Vaihingen within walking distance of the institute. So I was going to be able to go there, but in the meantime, I had planned to spend a few days with my German colleague, Ekkehard Ramm, and his family who lived in a suburb town near Stuttgart, a town named Böblingen. I drove into Germany, went south, drove into Böblingen and into the downtown area but didn't remember how to get to his house. I had to call up Ekkehard and have him come and fish me out of my indecision and get me to his home, which he very graciously did. The other recollection that I have of that foolish escapade was that they had a basement bedroom where they put me up and I went to bed that evening and apparently didn't wake up for fourteen hours.

LaBerge: They were getting a little worried.

Pister: They were afraid something was going to happen to me, but they didn't want to come down and knock on the door. I slept for fourteen hours after having flown from San Francisco to Paris, having driven from Paris to Böblingen and gone to bed. But anyway, I got back into the routine. Actually I stayed in the Ramm's house for a couple of weeks because they were taking a holiday in Switzerland. So I was a house sitter for a couple of weeks, had a wonderful chance to get back into the German culture without having to do much.

LaBerge: I was going to ask you, did you have trepidation after your first experience?

Pister: No, I felt fairly comfortable coming back in 1978. I got acquainted with his neighbors, there was a young couple next door, German neighbors, who had spent a number of years in the United States. They both worked--well, one worked for IBM--one worked for Siemans. They had been in Washington, D.C., I think, for almost a decade, and they were perhaps in their thirties, really interesting people. I remember going over one evening, and I think in the evening we consumed two bottles of German wine among the three of us. But this story is so interesting because it reflects so much. They were talking about their experiences in the United States and having traveled in the United States. At one point they said, "You know. It's too bad. If Hitler had ever visited the United States, he never would've declared war on you because he didn't realize how large the United States was and what the resource base was." I thought that was a really interesting way of explaining the isolationist attitude that some people have.

Okay. So we're back in Germany. Actually Rita and my son Kris came back to Stuttgart somewhat later. They arrived in May because Kris would have been in seventh or eighth grade, I guess, and he brought some books with him. But he actually went back into the Eberhard Ludwig Gymnasium and in the class that he'd been with when he started. I remember he was so pleased when he went back to the school and some of the boys came up and said, "Oh du bist der Kris. You're the Kris."

LaBerge: People recognized him.

Pister: Yes. So that was really good for him.

FENOMECH Planning; Other Lectures

LaBerge: So he was the last one at home.

Pister: Yes. None of the other kids came with us, just Kris. Lots of things happened in that year, in that sabbatical experience in Germany, which lasted for me only from March to early July. I want to go over some of these things because they have important implications in what happened to me for the rest of my life in the University of California. During the time I was there, I spent a lot of time on planning with colleagues at the institute for a major international conference on finite elements in non-linear mechanics, abbreviated FENOMECH. This was really the first major conference of this kind, and it was organized by the institute and supported by a number of organizations including our own Office of Naval Research.

So I was involved in the organizing and planning committee and spent a fair amount of my sabbatical time on this task. But it was an important one because I was able to influence the choice of people that would be invited to participate and all, and I'll come back when we actually had this conference to some amusing things that happened. That was a major professional event that took place later in 1978.

The second thing that was important to me that year was that I was invited to present a special invited lecture at a conference on nuclear power and related reactor technology problems in Brazil. This was an international conference organized by the federal university system in Brazil, and the venue was Porto Alegre in southern Brazil. I had met some of the Brazilian engineers in the SMiRT conferences, and I think it was on the basis of that association that I was invited to give one of the invited lectures.

So that led to a complicated set of travel plans because in addition to that conference, which took place sometime in April of 1978 after I just arrived in March, there was a second conference or symposium, it was called, organized at the University of Illinois honoring my doctor Father, Henry Langhaar. I was invited to give a paper at that symposium as well. So I had to go from Stuttgart to Porto Alegre and then from Porto Alegre back to Urbana and then Urbana back to San Francisco before I went back to Stuttgart. Some interesting things happened there. I flew back to the United States, and I think I flew to Chicago and then from Chicago to Miami. I met Rita in Miami, and then we flew from Miami down to Rio together and spent a couple of days in Rio with a colleague that I had met at one of the earlier SMiRT conferences, his name was Jim Mason in English or Jaime Mason in his native language. He was a very gracious host, and we stayed with him in Rio and had a chance to see some of the sights in Rio before flying down to Porto Alegre for the conference. I then came back with Rita to Miami. She flew from Miami back to San Francisco, and I went back to Chicago and ultimately to Urbana to the Langhaar symposium.

That was really a very warm experience because I was able to not only see Hank Langhaar on the occasion, this was really the occasion of his retirement to become an emeritus professor. This is now twenty-four years ago, and I've been an emeritus professor for a good many years. So it's a funny experience, it's a funny feeling to think back that far, when I'm passed that point now that he was at that time. These experiences come in one's life, don't they? Anyway, it was great to see him and also I was able to see for the last time a colleague from my department at Urbana, Marvin Stippes, whose name I haven't mentioned before. Marvin was a young faculty member when I was a grad student at Illinois. He was an assistant professor, marvelous teacher and tremendously bright person in mechanics. I took a course from him while I was there. But anyway, Marv was there. Marv had already been diagnosed with terminal cancer. So this was a chance to see him for the last time. It was a bittersweet experience, but it was one that I am really glad that I made the effort to get back.

Frankfurt Airport Call re: Academic Council

Pister: So I finished the conference there in April of 1978, flew back to San Francisco here, and I've omitted in this travelogue a signal event--is that the right word--well, a very important event that happened on my way back, in April 1978, as I had flown from Stuttgart to Frankfurt waiting to catch the flight from Frankfurt to Chicago. I was in the airport, and all of the sudden I hear a call on the public address system in the airport, my name, please pick up the white phone or whatever. It was in German, of course. I can't remember--

LaBerge: But you understood it.

Pister: But I understood that I was to make a call. It was a call back to the secretary of Professor Argyris at our institute. I called back to the institute, and they informed me that they had just received a telegram from Professor Jack Raleigh at UC Berkeley, and I still have a copy of that telegram somewhere, but I couldn't find it today. Jack Raleigh's telegram said, "You have been nominated for the vice chairmanship of the Academic Council of the Academic Senate of the university. I need to talk to you as soon as possible to see if you'll accept." Well, that was, of course, a great surprise to me because, and I failed to mention this, before I left for the sabbatical in March of '78, I had been approached by Dodge [Diogenes] Angelakos who was a colleague from engineering--he was either the chair of the Committee on Committees of the Berkeley Division or a member of the Committee on Committees, because he had approached me. I still remember him sitting in my office and asking me if I would be willing to be chair of the Berkeley Division in 1978-'79 and I accepted, since I'd been vice chair under Jack Raleigh and Bob Connick.

Well, I flew back from Chicago to San Francisco, came back to the campus and had a chance to talk first with Dodge and then with Jack Raleigh. I explained to Dodge that I had these two opportunities, and I really felt that there were plenty of good people at Berkeley to do the Berkeley Division job. I felt that it would be good for a Berkeley person to be back as chair of the Academic Council which is universitywide. So I gave up the appointment to the Berkeley Division chairmanship to accept the vice chairmanship of the Academic Council. That really got me back onto the council again after having served as chairman of UCEP back in 1972-73. It brought me in touch with Bill Frazer who subsequently became senior vice president and provost of the university under Dave Saxon first and then David Gardner. So Bill was chairman of the council at that time. Bill was from UC San Diego. I spent a year with Bill as vice chairman of the council, and then in the subsequent year '79-'80 as chair of the Academic Council.

Academic Council, 1979-1980

No Confidence Vote in San Diego Chancellor

Pister: Since we're talking about that, it might be well to mention a couple of incidents that still stick in my mind. It was during the '78-'79 year when I was vice chairman of the council that the San Diego Division of the senate voted no confidence in their chancellor, Bill McElroy. That no confidence vote of the San Diego Division was then presented to the Academic Council for either its support or rejection. So it was brought to the council, and the council debated and basically said if the division feels no confidence in its chancellor, then the council has no confidence in the chancellor. There was a resolution supporting the San Diego Division passed by the council with the instruction that this resolution should be presented to the Board of Regents.

The night before the board meeting, Bill Frazer talked to me and said, "You know, I'm from San Diego. I can't present this resolution. So you'll have to present the resolution."

So I said, "Okay. That shouldn't be much of a deal. Let's just work it out so that Chancellor McElroy will not have to be in the room when this resolution is discussed."

LaBerge: Did he already know, though, that his senate had--

Pister: Oh, yes. That was an open thing. I don't know that he knew that the council had done this; there was some ambiguity about what he knew and what he didn't. I think there was more than ambiguity. There was a real omission on the part of somebody because, for whatever reason, when this item came up on the agenda of the board the next day, the chair of the board at that time was Dutch [DeWitt] Higgs, who is a prominent San Diego person who knew Bill McElroy well. Chairman Higgs asked me, "I understand you have a resolution. It's time for you to read it." Well, fine, but no one had told Bill McElroy he should not be in the room. Indeed, I was sitting right next to Bill McElroy. I had the really, very awkward position of having to read this resolution in the presence of Chancellor McElroy. Having read it, then Chairman Higgs, I might say, I think, inadvisably said, "Well, what are all the reasons for you to present this resolution at this time?" I just was silent. I'm not going to sit there next to the person we're talking about and--

LaBerge: With the dirty laundry.

Pister: Let the dirty laundry out, saying the chancellor didn't do this or do that and so on. So I just sat there without saying a word. Well, to his great credit, Dave Saxon saw the dilemma right away, and I can't remember what he said, but he was very skillful in basically deflecting the whole thing, and that was the end of that.

LaBerge: In fact, did Bill McElroy resign or what happened?

[18B]

Pister: McElroy and his vice chancellor both suffered some salary consequences as a result of the whole thing. Yes. Bill resigned a year later. Having been through this now and seen it from the other side, I have much more sympathy for Bill McElroy than I might have had as a fire-throwing Academic Senate person at that time, because these issues of confidence and no confidence and leadership of the campus are very complex. I don't mean to say that chancellors don't make mistakes, but the level of understanding and the level of tolerance that sometimes is displayed by votes like this is troubling. We've had them at Berkeley; a number of campuses have had this kind of problem. So that was one of the less pleasant moments in my term as a vice chairman of the Academic Council.

Composition and Work of the Academic Council

LaBerge: Do you want to go into how the Academic Council operates and who's on it?

Pister: Possibly we could. Yes, probably we could continue with that.

LaBerge: Okay. [tape interruption] Tell me who is on the Academic Council and how they're appointed.

Pister: Sure. The Academic Council is in effect the executive body that acts for the Assembly of the Academic Senate of the university. The Academic Senate was created by the Board of Regents, and the assembly is essentially a representative body for now the ten campuses of the university, representative of the faculty of the ten campuses. Each campus division selects representatives to be on the Academic Assembly. But since this body meets relatively infrequently, the Academic Council bears the responsibility of doing the kind of day-to-day business for the assembly. There are certain things that are reserved to votes of the assembly, but much of the business of the Academic Senate--when I say Academic Senate, I mean the Senate of the University of California, not one of the campuses which is a divisional senate. Most of the day-to-day work is done through the council.

The council has a chair and a vice chair. I might add the president of the university is the president of the assembly or the chairman of the assembly. The chairman of the Academic Council is the vice chairman or the vice president of the assembly. But the role of the president of the university is strictly symbolic in this regard. All academic officers of the university--chancellors, president and vice presidents, vice chancellors--are members of the senate. The membership has a constitution like this. Each of the divisional chairs is a member of the council. Then the chairs of the standing committees, not all of the standing committees, but the most significant committees like the Committee on Academic Personnel, Educational Policy, and so on. They are all represented.

During the year 1979-80 when I was chairman of the council, in reflection it was a move that turned out to be an important one, I encouraged the council to consider a change in our by-laws and add the chairman of BOARS, the Board on Admissions and Relation with Schools. BOARS had not previously been represented on the council, but given what's happened in the last years about admissions in the university, it was a good thing that was done and the chairman of BOARS has been on board for a number of years. But I can't remember at the time why I felt it was important to do this. There must have been some business, some incidents or some sense that admissions was going to be more important than it had been in the past that led me to make this recommendation.

Anyway, that's what happened. So the council meets once a month. It has a session with the president and his senior staff, the vice president for budget, the senior vice president, and provost, academic affairs. So it's a very important consultative body for the Office of the President.

LaBerge: And what about going to regents' meetings?

Pister: Yes. The chairman and the vice chairmen of the council are called faculty representatives to the Board of Regents. They are not voting members. They have the privilege of the floor at board meetings. When there are sessions called "regents only," they are permitted to stay in the regents-only sessions. The status of the faculty representatives on the board has been examined and re-examined several times. It was re-examined when I was chairman of the council, and there's always been a difference of opinion as to whether or not these faculty representatives should be voting members, regular members of the board like the student regent is, for example. But the consensus of the faculty over the years has been that it's in the best interests of the faculty to have these folks present, to be able to speak and to listen, to engage in dialogue, but not to vote on issues. I think it's probably the right decision to make.

I became chairman of the council in September of 1979. I had my office in 320 Stephens Hall, and the secretary for me was located in Stephens Hall. I conducted the business of the Academic Council and the assembly from that position. During the year I was chairman, I had a full-time release from my teaching obligations and essentially the committee service I might have had although--

LaBerge: So it's a full-time job.

Pister: It's absolutely a full-time job. It's become an even more full-time job. The evolution of this position is an interesting subject in itself. I might even comment on that. When I was chair of the council and in the year before, Bill Frazer and I and then my successor was Ben Aaron, professor of law from UCLA, we met with the president, David Saxon at the time, for one hour a month, privately. We discussed issues that were of importance to the faculty, at least our perception of their importance to the faculty with David by himself.

Under Jack Peltason and then continued by Dick Atkinson, the chair of the senate has been brought much closer to the administration. First of all, now the chair of the Academic Council has an office in the Office of the President, down on 1111 Franklin [in Oakland]. When we were in the Kaiser building, the senate chair had an office there with a secretary. In my day it was difficult to get the budget to do anything. But now they have that kind of support, and it's good because the cry has always been from the faculty, that we're asked to comment on issues, but we don't have the resources or the time to do it in a timely way.

LaBerge: Did the fact that these two presidents had been faculty members have something to do with--

Pister: Well, I think almost all the presidents have been faculty members, most, not all of them. I don't know. It's just a question of style, I think. But perhaps even a more important thing from the standpoint of the senate is, in addition to having an office in the Office of the President, Jack and now Dick have included the chairman of the council in the weekly president's cabinet meetings. I know this because during my years in the Office of the President, the most recent years, I attended the president's cabinet meetings and was part of the discussion in which the chairman of the council was present.

I think there are two sides to this. There's a good side and there's a not good side. People have different views about whether or not the council chair should be part of the president's cabinet. I'm not going to opine further on that. I am not sure where I stand at the moment on that.

Let me see, going back then, that gives a sense of the council. There always has been and will always be a problem with the Academic Council, and the chairman of the council, which is the main source of information for the president and his officers about how faculty feel on issues. The other side of that is many faculty on the campus feel that this smaller group of people can't properly convey the sentiment of the faculty to the president on critical issues. That's basically a problem of a representative kind of government. It's true at the campus level as well. In my view the answer to that dilemma is that more faculty have to be involved in senate affairs and exercise their rights as members of the senate to be heard on issues and to see that the governance functions properly on the campus, as well as in the systemwide office. I'm reminded of that over

and over again. I remember when I was chairman of the council hearing a lot of that from Berkeley.

LaBerge: You weren't represented fully.

Pister: Yes. Well, we don't feel that way just because you say that. Even, I think, my chancellor at that time had some feelings about that.

LaBerge: Let's see, the chancellor was--

Pister: That would've been Mike Heyman. I'm not sure where Al sat on this one, but as I said, he was a silent person most of the time.

LaBerge: I loved that description yesterday about Buddha-like.

Pister: Well, that was Bob Sinsheimer.

LaBerge: He still is like that when you see him at the Faculty Club.

Pister: I remember reading a press release about Al Bowker once. He was bodysurfing at Santa Cruz and a wave whipped him over and hurt his back or something. So that's the Buddha-like figure bodysurfing at Santa Cruz. I'd have to go back. That was in the paper somewhere.

Proposition 9 and David Saxon's Letter

Pister: Let me see. Some interesting things happened during my term as chair of the council that I'd like to mention. One thing that sticks in my memory was the spring of 1979 or 1980 would've been, I guess, there was a ballot initiative, Proposition 9, which would've really created havoc for the University of California. I remember Dave Saxon's leadership. Everybody thought it was going to pass. It was an issue that would've really seriously affected the budget of the University of California.

LaBerge: Do you remember any of the specifics?

Pister: I don't. All I remember it was Prop. 9. Everyone thought it was going to pass, and Dave Saxon said, 'We can't let this happen. I'm going to fight." Indeed, Dave did fight it. As a consequence of his fight, he sent a letter out to the parents of all the students in the University of California telling them that if Prop. 9 passed that their children were going to have to pay higher fees to attend the University of California. As a result of that he was sued by one of our elected officials, I think it was Bill Leonard, for using the university letterhead, so to speak, in the political way. I don't think Professor Leonard was successful in the suit, but I'd have to look at the record to see that. But anyway, that didn't deter Dave, the threat of the suit, prior to the election. And by the way, it did not pass. Prop. 9 was defeated.

LaBerge: Do you remember who was sponsoring it?

Pister: It was a Jarvis type.

LaBerge: That's what I thought.

Pister: Jarvis/Gann. Yes. It certainly was. Anyway, prior to the election and not too long before the election, out of the blue, Governor Jerry Brown summoned the presidents of UC and CSU and their senate chairs to Sacramento. I think it would've been Glenn Dumke and Dave Saxon and I, and I don't remember the name of the senate chair of CSU. But we were brought to Sacramento in what turned out to be a very strange kangaroo court kind of a scene. The governor's people had arranged a kind of a cheering section over to one side in this conference room, people who were very much against the university. The governor blew in, and at that time I recall that Governor Brown was campaigning for President of the United States. The governor came in and started to talk about something. It wasn't necessarily Prop. 9, surely. Dave basically interrupted the governor and said, "Governor, instead of running around trying to be President of the United States in Wisconsin, you ought to be home in California telling the people to vote against Prop. 9." That was David Saxon at his absolute best in my view. I don't remember what the governor said, but subsequently before the election, Governor Brown did go on television--I still can see him--with a bunch of charts saying, here's why you should vote against Prop. 9. But the governor waited until the last minute. How much Dave Saxon's statement affected him, who knows. But certainly, Dave was at his best then.

Board of Regents

Pister: I remember him at some regents' meetings also being very quick to point out when people were wrong. He didn't suffer fools. I really admired Dave. He had a wonderful sense of humor. It was dry, but wonderful. I still use a quotation that I learned from him way back at a regents' meeting down in southern California, and I can't remember what we were talking about at the time. But David made the statement, and he's quoting the philosopher Pogo when he said this. He said, "The problem is we are surrounded by walls of insurmountable opportunity."

LaBerge: That's wonderful.

Pister: It's a quote that I have used many, many times in my own talks to people that we are often victims of our own choosing. Anyway, that was a very interesting incident in my time as chairman of the council. There are a couple of other things that I would like to mention, people that were involved, some of my favorites in that time period when I was chair of the council. In particular, I'd like to single out Marj [Marjorie] Woolman who was secretary of the board. Marj was a real no nonsense person. I guess she'd been in the Marine Corps in World War II, and she ran the board pretty much like she was a marine officer. We used to have lunches for the regents, and in those days Marj would stand at the entrance to the lunchroom with a clipboard, and if your name wasn't on the clipboard, you didn't get in to eat lunch. There probably is an apocryphal story, but I'm told that once Marj wouldn't even let the president in for lunch because his name wasn't on the clipboard.

LaBerge: Let's for the record say she was secretary of the regents.

Pister: Yes, secretary of the board for many years. Yes. Marvelous person. She once told me I was a good faculty representative because I didn't say much. But she became really a very dear friend over the years when I went on to do other things. She lived with her mother out in Lafayette not too far from where we lived. But I rarely saw her out there. A real turning point moment in my relationship with Marj occurred once after a board meeting, a Friday afternoon or late Friday morning. We used to meet at the convention center in downtown L.A., and the regents had a huge barn-like room where they set their secretariat up. I don't remember what brought me there, but I went in after the meeting, and normally the secretary is busy collecting papers and putting stuff in boxes to get ready to leave.

But Marj was at a steel desk sitting there, and I went and sat down, and she said, "Stick around." So she pulled out a drawer from the desk, whipped out a bottle of scotch with two glasses and poured me a glass of scotch, and we shared--

LaBerge: That meant you had really made it. [laughter]

Pister: That I had really made it with Marj. Apparently over the years, she had a reputation for doing things like this. She was a dear person and sometimes her actions however backfired. Apparently at some regents' meeting, she allegedly slighted an elected official. I remember sitting through the hearings that year subsequent to that time, and actually the legislature voted to take some number of thousand of dollars out of the budget basically aimed at the secretary's office. They can't really do this, but they can make it in their budget language why they're knocking out this much because Marj had slighted some elected official in the past.

There are a couple of other people that really come back to my memory for different reasons very strongly. One was a young woman, a member of the board, Vilma Martinez. Vilma was certainly the first Chicana on the Board of Regents and indeed one of the few women that have been on the board. Ellie [Elinor] Heller was another, of course. I got to know Ellie as well, but Ellie was a powerful person and respected by board members and could hold her own with anybody. But Vilma, being a younger woman and being a Chicana, had a lot of doing to be accepted by the basically older, white male members of the board. I used to sit there and watch her and to listen often at the slights that were directed at her and the put-downs that were thinly veiled like, "Well, why would you know something like that?" Or, "What do you mean saying that about this issue?" She was a model of decorum. She handled herself so beautifully over that time.

She and I became good friends over the years. I admired her ability to articulate the position of a minority woman so beautifully and with such grace. Over the years, I do believe she became chairman of the board at some time, so that she made it in the eyes of her confreres. They were confreres to be--. If one were to go back and look at the composition of the board at that time, you would see it was basically a white male board.

Another person that I want to single out, another dear person, was Dorothy Everett. Dorothy was assistant president of the university. I think, she was probably the first woman ever to have the title of assistant president. She was a tower of strength for a number of presidents and just a thoroughly wonderful open gracious person that I could

always turn to for getting any advice or help. Again, she's a person that has been a dear friend in subsequent years and been part of my professional life.

LaBerge: She was assistant president to Charles Hitch?

Pister: I think Hitch and--

LaBerge: And Saxon, okay.

Pister: Yes, my first experience on the council was back in early seventies when Charlie Hitch was still president. Again that leads me to make the observation that the presidents that I've worked with in different capacities starting with Harry Wellman, Charlie Hitch and then Dave Saxon, Dave Gardner, Jack Peltason, Dick Atkinson actually have all had very different personalities and different styles. But the office is sufficiently flexible to accommodate these differences in style, and I think the university community understands this reasonably well. I can't say that one kind of personality works better than another kind. Each one I think has its strengths and has its drawbacks, but it all seems to work.

National Lab Contracts

Pister: There were two important issues that came up before the Academic Senate during my tenure as chair that I'd like to call attention to. One, we had an occasion to go through the exercise, which has been repeated several times, of a faculty vote on whether or not the University of California should manage the defense program laboratories, the so-called national laboratories. This was a mail ballot kind of operation, and there's a long history of how that happens, and each division has to vote on that. There was a necessary preparation to put in place the proper process to look at the vote on the national laboratories. For the life of me I can't remember how the vote came out at this point in that particular time.

LaBerge: Does it influence what the Board of Regents does?

Pister: Yes and no. Those faculty votes certainly have some effect, but certainly they're advisory to the board obviously.

LaBerge: Because every time, the board keeps approving the contract so--

Pister: Sure. I think it's important for the board to hear this kind of discussion and to see the outcomes, but ultimately these things are all advisory to the board.

[19A]

Pister: I was simply noting that in the realm of shared governance in the university, and that's really probably as closely as you can connect it to the board, most of the role of the faculty is advisory. The president and chancellors are basically called on by regental policy to consult the faculty on a range of issues, budget, personnel. The compass of that

kind of consultation has grown and it changes with different administrations, but there's nothing in the history of the university in my view that says that if the faculty feels this way, you must do this or that. But clearly if a president or a chancellor consistently ignores the feelings of the faculty, then there's a peril to that. It can lead to things like votes of no confidence. That's what happens.

Collective Bargaining for the Faculty

LaBerge: For sure the regents didn't follow the faculty and chancellors' vote on affirmative action.

Pister: No, and when we talk about affirmative action, I want to come back to that because that was a major oversight, in my view, in process when the regents adopted SP1. Let me just pick up one final thing that I recall from the '79-'80 year in the senate, and that is the whole issue of collective bargaining for the faculty. I believe the act in the legislature was called the Berman Act. [Howard] Berman was a legislator from southern California. He was apparently a friend of Chancellor [Charles] Young because Chuck has often reminded us that he helped draft the Berman Act. But the Berman Act that was passed by the legislature created an act called HEERA, the Higher Education Employee Relations Act. The interpretation of HEERA was placed in the hands of the Public Employees Relations Board, PERB. But the consequence for the university was to basically permit an election process to be developed and the election process would determine whether or not faculty wanted to participate in collective bargaining. For participation of the faculty, the legislation was written in such a way that this would be determined on a campus basis and not a systemwide basis, which was a very, very prudent thing to do, I think. As it turned out, when the campus divisional faculties voted, the only campus to elect to be represented by a collective bargaining agent was UC Santa Cruz.

I should back up and say that the scope of HEERA was such that it was very, very carefully written, and in fact Chuck Young was one that advised Berman on this. I'm sure there were others too. It was written in such a way that, by making the campuses the units that would either elect or not elect to be represented by an agent, it basically very much constrained the range of issues that could be decided by collective bargaining, because most of the things that affect faculty like salary and such were systemwide issues that were outside of collective bargaining. The consequences, since Santa Cruz is the only unit, is that for the university, on faculty issues at least, the president's office has to be careful to notify the Santa Cruz unit when things are going to be changed. They're not bargainable, but under the terms of the act, you have to notify the agent that represents faculty that you're going to do things. I know this because on a number of occasions when I was chancellor at Santa Cruz, the president's office failed to do that, and they had to pay fines to the Santa Cruz faculty association. I never had any problem with that.

Of course, much more recently in the last few years, the whole HEERA issue came up in terms of graduate student representation. As you know, President Atkinson decided that the fight to exclude graduate students from HEERA was no longer possible, and he basically acceded to allow graduate students to be brought under HEERA. Although initially it was written in such a way that it said graduate students are not employees, and they're not going to be represented. That was a major issue, and at that time the council

had the role of explaining all of this to the faculty and to be sure that the senate understood what the whole thing was about.

LaBerge: I would imagine you got lots of calls and visits from various faculty or not?

Pister: Well, I don't remember--Archie Kleingartner was the vice president at the time for personnel issues. Archie's office did a lot of this work, and we were essentially in contact with his office, which took the leadership in dealing with the dissemination of information about terms of HEERA.

One of the functions that I exercised during the time that I was council chair was to sit on a board called the APPRB, Academic Program Performance Review Board. That's what it was. Indeed it was headed by an assistant vice president. I just happened to run through in reviewing for this session today, my correspondence finding that some time in that year '79-'80, the assistant vice presidency changed, and I was invited to become a candidate for assistant vice president for APPRB.

LaBerge: Who had it been or don't you know?

Pister: I don't remember at the time who was vice president in that position. Don Swain was the academic vice president of the university at that period, and I have, in fact, a letter from Don thanking me for my service on that board. As you know, Don went on to be president of University of Louisville. He was a tough guy to work with as a senate member, I remember. [laughter] He was fair but tough. Let me see.

First Joint Meeting of CCC, CSU and UC Senates

LaBerge: On your list you have something about speaking at the CCC Academic Senate annual meeting.

Pister: I'm glad you brought that up. There were several things. Yes, I was invited to speak at the annual meeting of California Community Colleges Academic Senate. I think perhaps a much more important thing that happened was that along with my counterparts in the CSU and the community college senates, we held the first joint meeting of the senate leadership ever during that spring of 1980. The thing that brought us together was our united opposition to Proposition 9. The interesting thing is that, whereas David Saxon and our senate was right out in front opposing it, neither the community college senate nor the CSU senate was allowed to do this by their legal counsel. So it shows again that Dave Saxon took a bit of a risk there, and the lawsuit substantiated the risk that he took. But they were willing to meet and talk about it, but they couldn't officially--

LaBerge: Come out with a statement.

Pister: To come out with, yes. But perhaps a more significant outcome of that first meeting of the three senates was what happened in subsequent years, that was like the starting point for what grew into a much more systematic and structured relationship between, particularly the CSU and the UC senates. Subsequently, there were a number of studies done in

freshman English, in mathematics, to establish what it meant to be college-ready for these fields. There have been continuing discussions over transfer issues and common course numberings and things like that, not that they've necessarily always gone as far as one would like to see, but I feel good that I was on the team that initiated the first joint meeting of these senates.

The last thing in this same area was in the spring of that year, I attended a joint conference between CSU and UC on the university's responses to the students of the eighties. That conference was at Asilomar, and I still remember going down there with the Berkeley division chair, Larry Grossman, who was a colleague in engineering with me. I have only two recollections of that conference at Asilomar. One was a wonderful talk that Budd Cheit gave, and I wonder if he remembers this talk but--

LaBerge: I don't think he talked about it, but I'll have to ask.

Pister: But he gave a talk in which the thesis of the talk was, look at what college alma mater songs say like, "For thee we die, all hail, all hail." He gave the most wonderful talk about the contrast between what the college song said and what was the fact on life on a campus. I can't believe--

LaBerge: He did not talk about that, and I'm going to ask him if he'll add it.

Pister: I wish you would because I often wished that I had a copy of that. He probably didn't write it down. It was delivered extemporaneously, but he has such a great style of speaking, and I have a vivid recollection of that.

Beginning Consciousness of Affirmative Action Issues

Pister: The second thing that I remember, and the only other thing that I remember from the Asilomar conference, is a discussion that I had with a small group of people talking about the students of the eighties and their increasing diversity and special needs. To give a kind of a marker as to where I was in terms of my understanding of minority students in that period when I was a member of the council, I remember saying, "Well, I don't understand why there's a problem for Hispanic students. The students in Mexico study the same kind of mechanics as the students in the United States." I had no understanding that well, the Mexican students that were taking those classes weren't like the Chicano students in California. The whole difference of background, class, perceptions of the importance of education, all the complications of the migrant, the issue of migrant population hadn't come to my level of consciousness yet.

LaBerge: So you think that that's where your consciousness of this started? Like it was before you were in engineering and did the MESA program.

Pister: Certainly, I'd been involved in the beginning of MESA, there was some stirring, but it didn't really become a major focus of my interest or understanding until much later. Just to strengthen that statement, I remember having a really heated discussion with Don Swain about admissions and whether or not broadening the admissions criteria, whatever

that meant at that point, was a good thing to try to diversify the student body of UC and Don being on the side well, we have to do this. I said, "You can't do that. You're going to dilute the quality of people coming onto the campus." I was at a very different point in the late seventies than ultimately I reached after I became dean and certainly as chancellor and vice president. So there was a huge learning curve that I went through between the late seventies and the present on that issue.

LaBerge: Well, you once mentioned that you learned around the dinner table some of your views on women and education, from your daughters.

Pister: Well, sure.

LaBerge: So that must've been a little bit on your radar screen.

Pister: Well, certainly. In fact interesting you mentioned that because I ran across a letter that I wrote to Dean Ernie Kuh in February or March or so of 1980 when I was chairman of the council, encouraging his support for a special program for women in engineering. This was before I had any sense at all that I would be a candidate for the deanship to follow Ernie, but I wrote the letter.

LaBerge: And you'd be implementing that. [laughter]

Pister: That's right. So I think I was much more sensitive to and open to the problems of women in engineering or women in general in professions than I was for what has been termed underrepresented minority students, ethnic minority students, because women are a part of the underrepresented group, but they're not by virtue of their ethnicity typically. Let's see. Yes, there's some more things.

More on Sabbatical, 1978

Pister: We got sidetracked in this discussion from my sabbatical year, and I'd like to go back and pick up that track because I guess we branched off into this area when I came back after the trip to--

LaBerge: Brazil. Yes.

Pister: Brazil. I came back and talked to Jack Raleigh and accepted the vice chairmanship, which led to all of this discussion. But in the meantime before then, I went back to Germany. I flew back by myself in May of 1978, and I still remember that. I was trying to get a cheap flight back, and my daughter Thérèse drove me to the San Francisco airport where I had read in the paper you could get a standby flight on Pan Am to London. So I went to the airport to the Pan Am desk, and there were people milling around all over the place, and I don't know how many hours I sat there waiting for a Pan Am flight, which never materialized. So out of desperation I then got on the phone and called Lufthansa and found that Lufthansa had a flight that night to Frankfurt, but Lufthansa flew out of L.A. at that time. I had to then get a PSA flight. In those days, it was not Southwest. I got a PSA flight to LAX and got on a Lufthansa flight and got back to Stuttgart successfully.

The trip back then led to some more interesting things. The remainder of my sabbatical year back there, I did a lecture tour visiting a number of institutions in Germany and meeting colleagues that I'd known for a number of years. I remember giving a lecture in Bochum, the University of Bochum in northern Germany, where in the middle of my lecture there was an absolutely ferocious electrical storm, and the rain poured down and the lightening was firing all over the place. It was a Wagnerian scene if I can't better characterize it than that. It really just stopped everything. We couldn't do anything, there was such noise and so much light flashing. So it was an interesting flashback.

Then I might comment on colleagues in Hannover. One of my former students was an assistant in Hannover and we had a nice reunion with him and met Professor Stein there who became a lifetime friend. Later on after I made this tour, I was invited to go to the University of Munich to lecture. I was looking through my notes and found an announcement of my lecture, entirely in German. When I got there--my friend who is now an institute professor at Innsbruck in Austria, he did his Ph.D. here at Stanford, but he's an Austrian--Gerhard Schueller said, "Gee, I forgot to tell you the people that are coming to the lecture are expecting you to give the lecture in German. [laughter] So would you mind saying just a few words in German before you give the lecture." So I dutifully did an introductory paragraph.

LaBerge: Written.

Pister: No, I didn't have it written. I just ad libbed it. It takes me back to the--I think I mentioned this--time I was in Italy when I studiously prepared an introductory part of my lecture there in Italian before I gave the English part. Anyway, that brought back quite a memory of the [laughter] awkwardness of having to give my opening remarks in German. Rita accompanied me on that trip. I think at that point our son Kris, who was with us, we had sent off for a two-week trip with a group of students from the high school who were going off to spend two weeks in the Swiss Alps. It was some kind of a camp. Well, we didn't have any idea what the camp was. It turned out to be, to Kris' great dismay, a camp that was very focussed on religion and--[laughter]

LaBerge: This is the second time. I see the problem developing.

Pister: Poor Kris got stuck with these people reading the *Bible* in German, [laughter] and the food was not particularly great and his shoes were ill fitting, and they did a lot of hiking. His feet were hurting. His ears were peppered by the New Testament auf Deutsch. Altogether it was not entirely a pleasant experience while Mom and Dad were going to Munich and to Salzburg and enjoying the German culture.

I had a very interesting trip, a meeting in Munich, and my lecture went well. But more to the point, a young graduate student there by the name of Filip Filippou came to my lecture. You can see from his name that he's Greek by birth, and Filip said to me, "You know I'm interested in doing further graduate work, and I've applied to Berkeley." I learned from Gerhard Schueller and Gerhard's major professor there, Professor Kupfer, that Filip was regarded as one of the brightest students that they had there. So when I got back to Stuttgart I either wrote or spoke to my colleague who was handling graduate admissions, and I said, "What's going on with Filip Filippou? We ought to admit him because he has very high recommendations." For some reason his application was not moving along. So fortunately it was broken loose, and he was admitted and Filip came to

Berkeley. He did his Ph.D. here with Professor Popov, and now Filip is a full professor of civil engineering in my department.

LaBerge: Oh, how great!

Pister: Not too long ago, in fact in preparing for this oral history and going over my correspondence, I found the letter--it was a letter--that I wrote to Jim Kelly who was handling graduate admissions for our group in which I mentioned Filip's name and said you ought to move this. He's a good guy. So I gave the letter to Filip. I reminded him of what it took to break the dam. Filip is a fine colleague, and I'm delighted that we were able to get him here.

Let me see. That happened in late June of 1978. We closed up after the lecture tour in Germany and our brief trip to Salzburg before coming back, we drove our purchased car, which I sold back in Paris. My wife Rita and Kris flew from Paris to London and then home, and I stayed. I went back to Stuttgart, rented a car because I had some more things to do before I finally closed up the place and finished my work in Stuttgart.

A couple of recollections on those last days. I remember we were in Paris on the Fourth of July I believe, and I don't know where Kris acquired fireworks, but he had some, and so Rita insisted since it was the Fourth of July that we had to go somewhere where Kris could shoot off these fireworks. So we went, and you'll pardon my French, to the Bois-de-Boulogne and found a secluded spot so Kris could fire off these fireworks in the Bois, and I never will forget that. I put them on the airplane, and they flew back, and I went back to Stuttgart.

FENOMECH Conference, 1978

LaBerge: Is this when you had your conference, the FENOMECH or whatever?

Pister: That's coming up. I went back to Stuttgart, as I said, for a brief period of time, and then I flew back to the United States. Because the conference was not until late August as I remember. So I flew back to Stuttgart again in late August to take part in the FENOMECH conference, which was really quite a huge success. I don't know how many people came to it, but it was a very international meeting. Professor Argyris was an honoree of the conference. It was either the sixtieth or sixty-fifth birthday. It must've been his sixty-fifth birthday, and a second honoree of the conference was a really esteemed colleague, Willie Prager who had been at Brown University most of his life.

LaBerge: You mentioned him before, I think.

Pister: I might have. It was his seventy-fifth birthday, and of course, at the time that seemed like an advanced age.

LaBerge: No longer. [laughter]

Pister: Upon reflection, it's quite the opposite. He was a wonderful distinguished and highly respected person. But anyway the conference went extremely well. We had a celebratory dinner at the institute on the last evening that was a dinner to finish all dinners.

[19B]

LaBerge: Okay, the dinner to finish all dinners.

Pister: It was in a laboratory. So it was in a kind of odd setting. But I was the master of ceremonies for the dinner, and this will sound crazy, but I will have to stop and recall, because of the multicultural quality of the occasion some of the cultural clashes that arose. For example, we had endless discussions about the menu. This would've been in the spring before when we were preparing. The protocol as to who sat with whom was a huge issue among the honorees and the senior people present, and at one point I remember Professor Argyris insisting it should be a formal affair. I said, "The people coming from around the world are not going to want to have to bring formal clothes to this." So then he insisted well, everyone should wear a white shirt. [laughter] He's kind of an old school person. I think I told him that's not going to be possible. I'm here, and I only have a gray shirt.

It was crazy, and then Professor Argyris at one point when he was called upon to make remarks gave his salutations I think in about twelve different languages so that--this might suggest that by the time the dinner was over it was close to midnight. People were getting quite anxious to leave, but it was quite an affair. I have to call attention to a letter that I found in my file from Professor Tinsley Oden, who at the time was still a young, but very successful and rapidly rising star in this field. He wrote this on September 6, 1978, and it was a short letter. It's interesting because it makes my point. "I want to drop a personal note to you to thank you for all you did to make FENOMECH '78 a success and especially to make my participation in it and my time in Stuttgart enjoyable." Here's the operative sentence. "I know that you were involved in the very difficult job of coordinating and planning the event on both sides of the Atlantic, and I sincerely admire you for the efficient and graceful way you were able to get things done. Best regards, Tinsley." That in very euphemistic language suggests some, but not all, of the things that I just put on the record here about that conference.

LaBerge: Where was Tinsley from?

Pister: Tinsley was at the time a professor at University of Texas-Austin. He's a colleague that I've known since the sixties, almost a self-made person who has won in his field all of the honors in the world. I don't know how many books he's written, how many papers, but he's a tremendously influential person in his professional life and a really fine person. I was with him in 1971 at the Lisbon NATO Institute that I mentioned. He was a lecturer with me, and we were together in many, many conferences. Let me see. We're still at the FENOMECH conference. I had to get home from that. Well, I came back in early September.

While I was there, there was an earthquake in southern Germany in what are called the Schwabisch Alps of southern Germany. It was severe enough to put cracks in the famous castle of the Hohenzollern family, which castle is still very visible when you drive along one of the autobahns in Germany. It sits way up on top of a hill, and Hohenzollern, the

word itself, means the "high tollers" literally. They collected the toll from that height. But it's also the name of a family.

German Exchange Student

Pister: I came back from Stuttgart in September of that year, and I brought with me a young German girl by the name of Birgit Wand. Birgit was the daughter of a family that had befriended Kris and my wife when we were there in 1973-'74. She was in the same school. Her mother was a very generous and very kind person, and was quite fluent in English. She was a secretary for a professor of mechanical engineering in Stuttgart, and she befriended us and took us in. We went to her home in Stuttgart, and became well acquainted with them, and so four or five years later we kept in contact with them. We arranged to have her daughter Birgit come and live with us and go to high school in Lafayette.

LaBerge: Okay. For a year or something.

Pister: I think it was for a semester. I don't think she stayed a year. So I flew back from Stuttgart to Chicago on Lufthansa with Birgit. I mention the stop in Chicago because it was a very awkward moment. We fly into Chicago, going through the customs. Here's this guy with this young girl, and he suspects I am bringing her in as some sort of a slave undefined. [laughter] So he starts to question her in English, and her English was not that good. I was trying to help her. So then he jumped all over me because I'm trying to answer for her.

LaBerge: Answer for her. Right.

Pister: Right. We had a very awkward moment, and the outcome of it was he wouldn't stamp her passport for more than a three-month stay, and we wanted six-months because he was suspicious of--.

LaBerge: Well, you're such a suspicious-looking character. [laughter]

Pister: I said, this young lady is coming to go to high school. She's going to live with us. That didn't work. Anyway, the consequence of that was we had to go to San Francisco after she got here at some point and renew her visa so she could stay longer and finish her year, no problem there. Anyway, she was the first of five German kids that we brought over. Rita ran her own foreign exchange program basically. [laughing]

LaBerge: How great!

Pister: So three of them stayed with us and two stayed with neighbors. They came for, usually one semester's period, and it was a great experience.

LaBerge: It's a big responsibility too. You don't know how it's all going to work.

Pister: Yes. Birgit was fine, and we went to the mountains with her, and in later years, she and her mother came together, and we had a wonderful time taking them up to our place in the

mountains to see the Sierra. Unfortunately, her mother had an untimely early death, and she's not with us anymore. Birgit had an older brother. Just to show how things go, he came and stayed with us. Not only did he come to stay, but he came to Berkeley and got a master's degree in civil engineering at Berkeley. He moved out at a certain point and moved into Berkeley. He married a Spanish girl when he was in the United States and worked for the Stanford linear accelerator for a period of time. Now he's living in Barcelona with his wife's family in business with his father-in-law in Barcelona. So it's interesting how these things go back and forth.

I should complete that by saying that in fact when her brother, whose name was Bernd, was staying with us in the United States, our daughter Claire had just finished a quarter abroad in the Stanford Abroad Program in Vienna. I think it was one maybe two quarters. I can't remember for sure. Anyway, this was Claire's second immersion in Teutonic culture. So her German was quite good by that time, and Claire, after she finished her time in Vienna came to Stuttgart and lived with the Wand family, and indeed she took the job that Bernd had, working in the office of the professor that his mother worked for. So she was on the German payroll, the University of Stuttgart payroll, excuse me, as Bernd Wand. She was doing English translations and things like that. She had a wonderful time in the social life in that area. She met some guys who fell in love with her, and she had a wonderful time skiing. In fact, she at one point was sufficiently acculturated that she could pass herself off as a native German speaker. I remember her saying that she went into a bar once and hearing some Germans putting down Americans, she really told them off because she could understand their language. I think that pretty well gets me back in 1978 and connects me to the '78-'80 period that we've--

LaBerge: That we've covered.

Pister: That we've just covered.

New Approach to Graduate Course with Colleague Tom Hughes

LaBerge: We didn't talk yesterday about leaving a package at the Stuttgart airport.

Pister: Oh, yes. That's connected to this period. Actually that goes back to the '73-'74 period, but it's connected to one of my *Connecticut Yankee in King Arthur's Court* stories about being in Germany. When I packed up in '74 to come back, I packed some books and more importantly, some notes on a graduate course that I'd been giving at Berkeley. That package was supposed to be sent back by Lufthansa airfreight. Well, when I came back to start the quarter in 1974, alas my notes didn't come back. So I was ready to teach this graduate course that I'd been giving for a number of years, but I had no notes because I took them with me. I'm reminded of Chang-lin Tien who always reminded us that crisis is made up of two Chinese characters, danger and opportunity. I guess I lived through the danger part and seized the opportunity part. That connects me back to a student that I accepted as a research assistant some years before then by the name of Tom Hughes.

LaBerge: You've mentioned him.

Pister: Yes, and Tom now was well along on his Ph.D. work at Berkeley and a brilliant student and colleague. Tom was appointed lecturer in civil engineering, and he and I co-taught the course. Based on some work that he had been doing with a colleague in mathematics here, Jerry Marsden, we totally restructured the course. Tom did some of the early lectures, and then I followed up, and we developed a whole new approach to the course that I had given previously. So the opportunity presented by the crisis really was a good one.

LaBerge: Did you ever get the notes back?

Pister: Well, I don't remember how much later, Germaine. It was certainly a year later. It might have been more than that. I'd received this strange note from American Airlines in the San Francisco airport saying that there was a package from Lufthansa waiting in their air freight depot. I went over and picked it up, and there was the box of notes. Apparently, what I learned from Kaspar--because Kaspar was instrumental in having this happen--was that the box sat for months and months in a Lufthansa building in the Stuttgart airport, and for some reason never got sent, even though it had been properly airbilled and everything. They finally got it to me, and I didn't have to pay anything for it and got my notes. But more important, it changed the approach that I used in this course and led to a whole new line of research for me based on Tom's work and his collaboration with Jerry Marsden.

LaBerge: Do you want to say what his work, what the new approach was?

Pister: I think that's less important, it's pretty much technical and not a matter of record. Do we have time to add a couple of other things in that period?

LaBerge: Yes.

Pister: I think it's important to note here in the same period of time following my trip to Rio in the spring of 1978, in addition to being with Jim Mason there I met a faculty member from the Pontifical University of Rio, a person whose name is Jorge Souza.

LaBerge: Pontifical meaning it's Catholic?

Pister: It's a Catholic university of Rio. I don't remember exactly the title. Anyway, I met Jorge and had a nice conversation with him. Jorge had studied for his doctorate in the United States at Rice University with a colleague that I had known since graduate student days at Illinois, a professor at Rice by the name of Andy Veletosos. So he was familiar with life in the United States since he'd lived here with some of his family way back when. I met Jorge, and we hit it off from the beginning, and Jorge indicated his interest in spending a sabbatical year at Berkeley. He was trying to get support from the Brazilian nuclear something or other fund because he was interested in nuclear power structures. That's I think what caused him to contact me. He knew about SMiRT and my involvement there. Over time and many negotiations back in Brazil and less so here, he finally got the support. I think it wasn't until actually the academic year 1980 that he finally made it. But he came and stayed two years with us, and we had a wonderful association with Jorge and his family, which continues until today. In fact next month we'll be visiting Jorge and his wife Anna in Rio. That was a wonderful by-product of our trip to Brazil back in 1978.

Just to perhaps clean up a couple of other things in the same period that are tied together. I notice a letter March 22, 1979, from David Saxon to me as chairman of the Academic Council that he'd like me to take part in the All University Charter Day at Berkeley and to lead the academic procession. It was the 111th Charter Day and the 400th anniversary of Drake's landing at San Francisco Bay, he said. As a fitting tribute to the occasion we have invited Ambassador Peter Jay and Ambassador Kingman Brewster as principal speakers. I still remember that Charter Day very well, since I did lead the academic procession, and I still remember Garff Wilson, who had a marvelous ability and quality of expression, standing there announcing and describing the academic procession and what the--

LaBerge: Colors meant.

Pister: Colors meant and all the gowns. He was so good at that, and that still rings in my memory.

LaBerge: Did you know Garff Wilson did an oral history?

Pister: I'm not surprised. That's good. I also remember he wrote that wonderful book *The Unidentified Man on the Right.* I have a copy of it.

Reluctant Candidate for Dean of Engineering, 1980

Pister: The other thing I'd like to conclude with today is the beginnings of what became a different track in my academic life in the University of California. I have a copy, looking at a copy of a letter that I wrote on January 29, 1980, to Professor Charles DeSoer who was chairing the search committee for the dean of engineering at Berkeley. I say "Dear Charles, I'd like to place in nomination for dean the following names." I don't necessarily want to put those names out, but I wrote those names to him. Then I have a copy of a letter that is, this is now February 22, 1980, written to the same Charles DeSoer by my department chairman and colleague, Carl Monismith, who said, "Thanks for your letter regarding my being considered for dean. Please remove my name from the list. In turn, I wish to nominate Professor Karl S. Pister for this position and urge in the strongest possible terms that he receive the appointment." So I won't go on.

LaBerge: So had you nominated him?

Pister: No. I hadn't nominated Carl, but Carl nominated me. What transpired out of that was the following. At some point, it probably would've been about March, this is February 22, about March, I received a call from Charlie DeSoer saying that I was one of a number of candidates for the dean's position and was I interested. I said, "Charlie, please take my name off the list. I don't want to be considered."

LaBerge: And what was the reason for that?

Pister: I was just finishing my two years in the senate, and I had a book about three-quarters finished. I hadn't been teaching for a year, and then the previous year I had a reduced

teaching load. So I was anxious to kind of get back into a traditional academic career. I didn't want to entertain the idea of an administrative appointment. I told Charlie no, and I still remember, I think it would've been in March or April I was in Sacramento at a budget hearing. I think it was at the conference center. I don't know why. It might have been because it was the All University Day up there. I made a phone call from a pay phone telling Charlie no, please don't consider me any further. Well, he visited me up in the senate office, and then he got his colleague who was professor of electrical engineering and chairman of the department at the time, a wonderful colleague who unfortunately met an early death, Dave Sakrison. I remember he said, you go talk to Dave Sakrison. So I went to talk to Dave Sakrison, and Dave said, "You know, you really should take the job." When I said I want to go back and do my research he said, "Look, if you take the job, you can facilitate the work of more than two hundred colleagues. So why don't you consider it, look at it that way?"

Then I also recall coming back from Sacramento late one night after probably a budget hearing with Dave Saxon. In fact it might have been, not a budget hearing, coming back from a fateful meeting with the governor. Sitting next to Dave Saxon in the back seat I said, "Dave, I've been invited to be a candidate for the deanship at Berkeley. What do you think about that?" He said, "Well, it's all right, but if you do that, you're going to change your career. Be aware of that." So he didn't really say much more than that, whether it's a bad idea or good idea. So in thinking back over this, I don't remember really, I know I talked to my wife about it, and I think she encouraged me, "Well, if it's something that you could do well or if you're interested, you should give it a try." So I don't remember any other major influence, but at some point I guess I said, "Well, I will be considered. I'll be willing to stay on the"--

LaBerge: On the list.

Pister: Yes, on the list, because it is up to the search committee obviously. So the search committee evidently nominated me and next thing I knew, I got a call, not from Al Bowker who was the chancellor.

This would've probably been late in the spring of 1980 when Mike Heyman had already been designated as Al's successor. I got a call from Mike saying, "You've been recommended by the search committee to be dean of engineering. I'd like to talk to you about it." So I went to talk to Mike about it, and Mike was very encouraging. I didn't know Mike very well. I knew him reasonably well but not very well. He was very supportive, and we talked about salary. He made a suggestion, and I more or less accepted his suggestion, raised it a little bit, [laughter] but in retrospect having seen how this process works, I was really naïve because I didn't ask for enough, not salary-wise but other things.

LaBerge: Support and--

Pister: Terms and conditions. I was just too much a senate person and not enough an administration person at that point to understand the dialogue that should have taken place. I said okay. He said, "Well, you go in and see the provost," that was George Maslach, "and George has to write up your proposed appointment." In those days the case had to go to the board--

LaBerge: Board of Regents.

Pister: Yes, Board of Regents, the recommendation for the appointment and the salary. George will have to write up the case for you. I still remember going in to see George and I said, "Well, George. I just talked to Mike, and he asked me to talk to you about salary," and so George said, "You're willing to take the job." I said, "Yes." George did the strangest thing. He genuflected. [laughter] He's probably a cradle Catholic. I don't know. He genuflected and kissed my ring, so to speak. He was so pleased they had a dean at that point, not necessarily that I was the dean. Although George and I have always been good friends, we've often disagreed, as the record will have shown, but I've always respected him, and I think he me as well, even though once during the Free Speech days he called me and said, "Do you realize what you're doing?" with kind of a fatherly admonition that I was going too far on the left side of the political spectrum.

Anyway, George wrote up my case, and I was subsequently appointed. There was an issue of timing and as I remember the way it went, the board wasn't meeting in time, and there was a wish on the part of the campus to announce it at the engineering commencement in June. So would that have been June or May? I can't remember, in '80, were we on the quarter system? So it would have been June. Yes. I think David Saxon appointed me using the special power the president has to make certain kinds of decisions outside of the board meetings and then simply report them to the board. He did that, so that my appointment as dean could be announced officially at the engineering commencement in June, which it was. But there was an interesting interlude--in between my appointment and its official announcement.

Dean Designate Meets Steve Bechtel, Sr., and Billie Greene

[20A]

Pister: There was a dinner held at the Pauley Ballroom--to honor the dedication of the Bechtel Engineering Center. There had been a ceremony in the afternoon dedicating the building, the opening of the building, and it was followed by a banquet in the Pauley Ballroom. I had several recollections of that day. Since I was a dean-in-waiting at the time or dean designate as it's called. In the Roman church, I was a dean *in pectore*. [laughter]

LaBerge: You have just so picked that up over the years!

Pister: The pope can appoint cardinals *in pectore*. So it's only known to the pope.

LaBerge: In secret.

Pister: Yes. Anyway, the recollection I have first is a wonderful picture of former Regent Don McLaughlin, after whom McLaughlin Hall is named of course, and a wonderful long-time supporter of the university. I think I had mentioned Don a number of times before. Don, whose passion was architecture on the Berkeley campus, had a huge influence on some of the buildings but not all. I remember Don saying, "This is a lovely building," and then looking at Evans Hall next to it and saying, "If we could only knock off about six

floors of Evans Hall, it would be even better." He just hated Evans Hall, and understandably so, I think.

The other recollection I have that I think is equally interesting was at the dinner. Since I was an unknown dean designate except to a very small number of people, I was not seated at the head table. At the head table was the incumbent dean, Ernie Kuh, and members of the Bechtel family, including the venerable Steve, Sr., whom I got to know when I became dean and really admired. I had some wonderful meetings with Steve over the years, a tough old gentleman but really a very interesting and a very nice person. Anyway, I was sitting at this table away from the head table, and I can't remember who it was that came up. It might have been Ernie Kuh, because he knew obviously, coming up and saying, "Mr. Bechtel would like to meet the next dean of engineering." So I was summoned to go up to the head table to shake hands with Steve Bechtel, and I was sure that everybody at the dinner knew why I went up to meet Steve Bechtel, but nothing was said about it.

There's one final very vivid recollection of that Pauley dinner. I think the record will show was a beginning of an incredible relationship. I was introduced to the dean's secretary, Billie Greene.

LaBerge: You had not known her.

Pister: I only knew who she was. I had not met Billie Greene. I remember being introduced to her and saying to her, "I think we're going to be seeing a lot more of one another in the days ahead." Fittingly, Billie had a light green suit on. That's how vivid the recollection is. I can still see her there, and she was such a pillar of decorum and discreetness that I don't remember what she said, but I'm sure it would have been a very noncommital sort of statement.

LaBerge: Like she didn't know.

Pister: Like she didn't know, yes. But as, I think I might have mentioned before, that was the beginning of a very profound, and I have to say even in a very particular sense, close relationship that I had with Billie for fifteen years when she served as my assistant as dean and then later my executive assistant as chancellor. I want to talk more about her later on. It had its beginning that evening.

So that pretty much finishes the 1979-1980 year, except in the very month that I was made dean at Berkeley, I received a letter from University of Washington, asking me if I would be interested in being dean of engineering at University of Washington. I said, by coincidence I was just appointed dean at Berkeley.

LaBerge: Otherwise I'd be thrilled, right?

UC Management Institute, UC Irvine, 1980

LaBerge: So should we pick it up there next time? Or do you have some more?

Pister: Let me while we have the chance, say just a couple of things. There was one more thing, and this will connect to subsequent discussions that we'll have. One of the last things that I did as chairman of the Academic Council, and this is already in the summer of 1980. The council leadership changes on the first of September. So this was July. I took part in the UC Management Institute at Irvine. That's an annual affair that's been hosted at Irvine for many years. It brings together people that are typically new to administrative work or new to the university at least, particularly new administrators, to give them some background about the university and its Byzantine processes.

LaBerge: So you attended because you were a new dean.

Pister: No. I attended because I was chairman of the Academic Council--

LaBerge: Oh, the Academic Council.

Pister: And I was asked to talk about some of the major issues affecting the faculty and the university. Joe McGuire, who used to be on the Berkeley campus was director of that UC Management Institute. He was a professor in the graduate school of administration at Irvine. I knew Joe when he was at Berkeley. I remember talking about the senate there, and I remember in particular a really interesting panel that was held there. I think I was part of the panel. In fact, I was the faculty member on the panel. There were two chancellors. One was Chuck Young and the other was Bob Huttenback from Santa Barbara. Three more different people, myself, Huttenback and Young you could not imagine in their administrative styles and personalities and all. Chuck, even then in 1980, had been a chancellor for quite a while and was a very experienced leader. Huttenback was less experienced, but absolutely all over the place in his presentation and talking about what it was like to be a chancellor, about somebody coming up to his office saying, "These two people were having a fist fight out here, what are you going to do about it?" Something like that, I still remember Huttenback had a real interesting delivery and was really funny. Anyway, I had that recollection. Joe McGuire said, "I think your presentation was brilliant even though it was a difficult assignment." I have no other recollection.

LaBerge: Is this the same Joe McGuire that was vice president?

Pister: Yes, he was.

LaBerge: Okay.

Pister: There's one more thing I think I'll mention here. We can connect it later on when we talk about diversity, affirmative action. It might have been the end of September, I took part in a conference at Irvine again. It was not a management conference, but on admissions and affirmative action, diversity. I still have a copy of that talk, but that really fits in better with the general discussion of diversity and affirmative action in the university that I'd like to reserve to a special session.

LaBerge: Okay, we'll come back to that.

Pister: Yes. We covered a fair amount today.

LaBerge: Yes. Do you want to start with the deanship?

Pister: Yes.

Tomas Rivera, New Chancellor at UC Riverside

[Interview 11: March 1, 2002] ## [21A]

LaBerge: Well, last time we were ending in '79-'80, and you had a few things you wanted to pick up that we hadn't discussed.

Pister: Yes, there were several other incidents that took place during the 1979-80 year when I was serving as chairman of the Academic Council. I'd like to mention some of these to begin with. The first has to do with a request made to me by David Saxon as president to provide an introduction to shared governance and the Academic Senate in the university for a new chancellor that had been appointed at UC Riverside in the person of Tomas Rivera. Tomas came up to University Hall, and I spent an hour with him talking about the intricacies of the Academic Senate and its relationship to the administration and what shared governance meant. That was the beginning of a very warm, and alas all too short, friendship with Tomas since we lost him early in his life. I really got to know and respect him a great deal following that interview and enjoyed his friendship.

That leads me to a really interesting and amusing luncheon that David Saxon held for him up in University Hall when he was a new chancellor. The luncheon was essentially an assembly of people from the president's office. I don't remember everyone there, and I was invited by virtue of my position on the council. It was a very congenial luncheon. At the end of the luncheon, David got up and said a few words and asked Tomas, said, "You've met a lot of people up here at this visit and probably will forget names. Would it be helpful to you if I had photographs of all these people sent to you?" Tomas thought for a moment and said, "Well, I don't know. Well, maybe you should because after all, you all look alike."

LaBerge: [laughter] Oh that is great.

Pister: I thought that was a beautiful response on his part, carried a very clear message. But that wasn't the end of it because--and to show his great sense of humor--and David to his credit accepted this quite generously. At another point in this same exchange, David said to him, "Tomas, are you and your wife comfortable in University House on the Riverside campus?" Then again, Tomas very gravely reflected on that question and said, "Well, Concha"--I think that was what he called his wife--"and I are doing all right. The house is rather large, but we'll hang some sheets and invite our family in and we'll be all right." [laughter] That was a marvelous expression of the great sense of humor, recalling that Tomas grew up on the back of a pick-up in the fields of Texas where his father and mother were Mexican immigrants, and he came to us from University of Texas-El Paso as I remember. This was a reflection of his experience. Anyway, those incidents have stuck with me now for more than two decades.

The other thing I would like to mention concerning the council was the annual occurrence, and it occurred for me on my retirement from the council in the summer. This would have been probably after the regents' meeting in July. There's always a farewell dinner for council chairs, and all the former council chairs are invited to the dinner. It was held in Berkeley. I was really pleased that so many people came, including my by then really good friend Angus Taylor and another wonderful person, who again was lost to the university tragically early in his life, Frank Sooy, at the time was chancellor of UC San Francisco. Frank had been an early chair of the Academic Council, and I got to know him by virtue of that, and I had great respect for him as a colleague. There were others of course there, but those two I remember particularly being present. I was very taken by the letters of support, or I should say the memo book I was given at that dinner, and more than that, I was given two sterling silver wine coasters with inscriptions on them that I treasure and use regularly in dinners at home. There were two quotations: one was Latin; the other was German. [Si monumentum requiris, circumspice.] [Die Goetter brauchen manchen guten Mann zu ihern Dienst auf dieser Erde. Sie haben noch auf dich gezaehlt.]

LaBerge: On purpose, because of your Latin and German?

Pister: Yes. I think so. It must have come out during council meetings in my use of aphorisms.

Pacific Grove and Windsor Farm, Stockton

Pister: There's some other things that I'd like to mention in that calendar year that were important. In the summer of 1980 my wife and I took a trip, just a weekend, down to Pacific Grove, which I'd visited as a child. I think we've talked about that in the past. We stayed in a motel on the coast, Borg's Motel as a matter of fact. It's still there. We had a really wonderful time, and at my wife's insistence started to look around to see if we could find a place in Pacific Grove. We didn't actually find one on that trip, but subsequently we did find a place. The following year, actually in 1981, I believe it was in July of 1981, we did find an old Victorian house that had been renovated that we were able to purchase. We still have that place on Central Avenue in Pacific Grove. But anyway that was a very important milestone in that summer of 1980.

LaBerge: Is that where you have your grandmother's chest or her drawer or something?

Pister: That's right. Yes, I have my great-great-grandmother's secretary, which is still sitting there in our bedroom. I believe I spoke about, well, I know I did earlier on, about my birthplace in Stockton at Windsor Farm. I should mention here another milestone event. After my mother's death in 1977, we tried to rent the place for several years, and that didn't really work out well. So in the spring of 1980 my brother and I sold Windsor Farm.

LaBerge: That must've been hard.

Pister: It was an extremely difficult thing for me. It was actually a tearful event for me because it had been in my family at that time over 130 years or so. It was in one sense a relief because we no longer had the responsibility of the place, but it was a very difficult thing to do. We put it on sale, I think, in the fall of 1979. It wasn't sold until March 1980. The

summer leading up to the sale I had to go up and do a lot of cleaning out of things and dispose of things that had been in the family for a good many years. So that was a very difficult moment in life. Happily it turned out to be only a temporary problem for us because I don't know if I've mentioned this already, but some years later my daughter and her husband were able to buy the place back.

LaBerge: Your daughter Thérèse, right.

Pister: My daughter Thérèse and her husband. Have I covered this?

LaBerge: You know what. We talked about it, but I don't know if it was on tape. We might have taped that early on. Say a little bit more in case we haven't.

Pister: My oldest daughter Thérèse, or Tracy, and her husband at the time bought the place, and this would've been in 1991, they bought the place back and reclaimed it for the family again. Tracy and her second husband, George, she lost her first husband in a tragic accident--are living there now.

VIII. DEAN, COLLEGE OF ENGINEERING, 1980-1990

Prelude

Pister: Now shifting gears into 1980. We talked about the problem of being put on the list of candidates for the dean of engineering and my discussions with different persons about that; being asked to be removed but not being removed; and then ultimately being given the opportunity to be dean which I accepted. I think I talked about my discussion with Chancellor-designate Mike Heyman at the time, and he asking me to talk with Provost Maslach about the terms and conditions of appointment because George would have to write the regents' item. The thing I forgot to mention was that George said, "Well, your job will be to find endowed chairs for the College of Engineering." At the time that he said that, I hadn't the faintest idea really of what that was about. I had not done any development work, any fundraising in my life save a brief encounter with fundraising in old Saint Anthony's Church in Oakland where we had a capital campaign. I made a few calls around the neighborhood trying to raise money for the church and got absolutely no response for my efforts. So it was not a terribly good track record to bring into the job of dean of engineering. Anyway, George said, "You're going to have to raise endowed chairs," and we'll say more about that later. But at the time it made no sense to me at all.

I believe I've talked about the dinner where I met Billie Greene and was introduced to Steve Bechtel before my appointment as dean had been announced at the commencement of engineering in June.

There's another interesting incident. There used to be a publication that came out universitywide, it was *University Bulletin,* I believe. The *University Bulletin* used to have information about the system as well as campus information. I remember it published my picture along with the picture of the new dean of optometry, Jay Enoch, and it confused the pictures with the names, so that I was shown under optometry and Jay was shown under engineering. I got to know Jay. He's no longer with us at--.

LaBerge: He's alive.

Pister: He's alive, but no longer with us. [laughter]. It happened again later on and I forgot where the switch was.

LaBerge: With him or with Ken Pitzer. I know that happened.

Pister: There was a confusion there. There was another Jay Enoch affair, but I forgot what it was at this time.

Stanford Commencement and Meeting President Donald Kennedy

LaBerge: How about the Stanford commencement?

Pister: Oh yes. That is something I would like to say something about because in June of 1980 I attended the Stanford commencement because two of my daughters were graduating that year. My daughter Jacinta received her degree in mechanical engineering, and my daughter Claire received her degree in history.

LaBerge: And, they're both the same year because engineering is five years or--

Pister: No, for a different reason. They graduated at different times from high school, but they took different paths. Claire did the Stanford abroad program in Vienna. Jacinta worked for a year and went to DVC to let her sister Claire go to Stanford because we couldn't afford to have them both there that many years. So anyway, the commencement was a nice affair. Stanford has a nice tradition of having an all-university commencement first, and then the actual awarding of degrees takes place at the department level or the school level. We attended both functions.

But the thing that I wanted to particularly call attention to, in thinking back, this was the occasion when the presidency of Stanford moved from Wallace Sterling to Donald Kennedy. I had the opportunity to hear Donald Kennedy's inaugural address. At the time I didn't know Don Kennedy, but I received a copy of his inaugural remarks. I don't remember how. There were some things in his remarks that I found very, very informative and very insightful. I used them a number of times in my own public speeches, particularly in talking to alumni, because he, in that address, probed the issue of why is it that alumni, or students who become alumni, continue to give their allegiance and their support to an institution. What is the acculturation, the identification, the glue that creates that bond? He had some really wonderful insights into that that I found very useful in helping me in my new position as a dean to speak with alumni and to understand that whole process of affiliation.

I should note here that later in my life I got to know Don Kennedy as a friend by virtue of the fact that my son-in-law, Richard Whitmore, who is Jacinta's husband, early on in his career worked in the real estate office at Stanford as a member of the staff of the director for real estate affairs in the president's office. In fact, Don and his wife came to Jacinta and Richard's wedding. I had a chance to meet him for the first time, and then later on in the 1990s when I was chancellorat Santa Cruz, we had the Kennedys and my daughter and her husband for dinner at University House at the campus. Don and I served together in an activity in the National Research Council for three years. So I had a real opportunity to get to know him well and to work with him. I have great respect for Don Kennedy.

Dean Karl Pister at UCB with the Russian bears

Photo courtesy of the College of Engineering, UCB

I should mention in passing also that when I was chairing the task force on the faculty rewards system, Don as president was talking about the importance of teaching at Stanford and how it should be evaluated and valued along with research in assessing a faculty member's performance. So we exchanged correspondence over that issue as well.

LaBerge: One of the things I have highlighted is a letter to Saxon regarding the major issues for UC. Or did we cover that?

Two Fulbright Experiences

Pister: I've seen that and what I've noted here is that I'd like to discuss that in the section on diversity and affirmative action. So we'll postpone that one. Did I mention also my meeting with Senator Fulbright?

LaBerge: No, not on tape. Since you had two Fulbrights.

Pister: Right. I think it's important to mention how valuable I felt the two Fulbright experiences were in my life, and not only in my own life, but in affecting my whole family and people that I met as a consequence of those two Fulbright experiences. The Fulbright program--really the Fulbright-Hayes program, but poor Mr. Hayes gets left off most of the time--was, I think, along with the Marshall Plan one of the great things that came after World War II in our nation's history. It's just a shame that the impact of programs like the Fulbright program is not well enough understood in the country, in the public, and the good that it accomplishes. I felt that I gained so much from the Fulbright experience that I often said to myself, I really ought to sit down and write a letter to Senator [William] Fulbright and tell him how much I appreciated this experience. Well, I never did that, but there was a dinner at the Faculty Club in 1980. Senator Fulbright came to the dinner and I had the good fortune of walking out in the faculty glade with him and telling him personally how much I appreciated the experience of being a Fulbright scholar and being able to shake his hand and thank him for that. So that was a signal experience for me.

Let me see then. I guess that pretty much takes us into the fall of 1980 and the beginning in 1981 of my decanal experience. When I accepted the deanship from Chancellor Heyman, I asked that I be given the opportunity for a sabbatical until the first of January, having just finished my tour in the [academic] senate. He graciously allowed me to do that. So I actually became de facto the dean on January 1. Although I was appointed dean, I wasn't functioning as dean. The interim or the acting dean [Arthur M.] Mack Hopkin, who was an electrical engineer, who had been associate dean under Dean Kuh, agreed to serve. He was really a great transition person because he knew the dean's office, and he was careful to reserve any significant judgments until I took over or he consulted me in the meantime. So it worked very well.

Training/ Transition

LaBerge: Do you get some kind of training or orientation to being a dean?

Pister: That's an interesting thing that you raised, that question. The University of California in my view functions in spite of the fact that people are appointed to academic administration. For a complex, highly distributed system, it's a marvel that we function as well as we do because there is so little attention paid to giving people the necessary understanding and experience of the positions that they're asked to assume. To the best of my knowledge, today in the University of California there is a statement of the duties and responsibilities of the president of the university, a similar statement of duties and responsibilities for a chancellor in the university. There are duties and responsibilities for department chairs, but I'm not aware that there's anything that states what the duties and responsibilities of a dean are. It's a strange--

LaBerge: And a dean is over the department chair. Correct? So we're missing a piece there.

Pister: Yes. A dean is, I guess you'd say, kind of in middle management. You're still close enough to the faculty, so the faculty haven't written you off completely. You're not totally identified with the administration as a dean, as you are if you're a vice chancellor or a chancellor. There you're doomed. You're an academic administrator now. But a dean kind of lives in this twilight world and that in a sense makes it a very interesting job because you're still kind of seen as a faculty member, at least in my experience here. I can't generalize that really.

So I guess I ought to go back. Before I started on the first of January, or perhaps it must've been way back in June when Dean Kuh was still dean, I asked for an appointment with Dean Kuh to get some idea of the position and all. I think I asked for a two-hour appointment. So I went into Ernie's office and sat down at the table and we exchanged a few pleasantries, and we talked for all of fifteen or twenty minutes, and obviously that was the end of the conversation, and Ernie said the college is in good shape.

LaBerge: Here it is.

Pister: Here it is. [Laughter] Well, he handed it over to Mack Hopkin actually, but anyway, that was the transition team at work. We didn't do an awful lot more than that. But what I learned is that in many respects an academic unit like that runs because the staff that are there know what has to be done. I had a very good administrative staff, and I'll say more about that in later time. But the fact is that the major thing that I had to do was to learn how to set up an organization that I felt would provide me with an opportunity to get to know the departments and the leadership of the departments and to be able to try to maximize the transmission of my sense of the college down to the faculty and the units. In other words, to create the kinds of structures that would do that, to facilitate the flow of information, not only information coming up to me but going down. Right at the beginning, I put into place a structure, which I might add I developed on the basis of talks with people in the president's office. Particularly, I remember talking with Don Swain who later went on to be president of University of Louisville. I got Don's view of--"Well, Don how do you meet with your senior people and how do you organize?" He'd been a

vice chancellor at Davis. So he had a sense of the campus. Of course, I had to set up a structure, and I had to find people to fill that structure. I was very fortunate I think in the people I had working with me in the ten years I was dean.

Organizing the Dean's Office

[21B]

LaBerge: Okay, we were talking about the people who worked with you.

Pister: Right. I set up a structure. I had a group of associate deans and assistant deans that carried out the different functions in the college. At that time, the College of Engineering had a graduate dean position, an associate dean for graduate affairs that worked with the campus graduate dean. We had a graduate student population of about 1,500 students, so that it was a fairly major responsibility to coordinate the admissions, even though the actual admission was done by the graduate dean of the campus. We had a lot of issues internal to the college. He was responsible for working with the faculty through the graduate study committee. I had a single, you might say, senior associate dean who acted as essentially my executive dean in the college along with my budget and planning officer.

LaBerge: Do you want to give me some names?

Pister: In my first five years the associate dean, senior associate dean, was Bob Steidel, who was a mechanical engineer, former chairman of the Department of Mechanical Engineering and very well schooled in the affairs of the campus. He worked in the chancellor's office and had a lot of experience on the campus and had done an excellent job as department chair. My graduate dean was George Leitmann, originally was Joe Pask, but that was in the transition period, and then George Leitmann became my graduate dean. I had a dean for university extension, Ed Laitone. I also created an assistant dean's position for minority students and women. That was a new position in the college. That was a long-term friend and colleague and neighbor, Bill Somerton. Bill was one of the founders of the MESA program--

LaBerge: Okay. You just mentioned him.

Pister: I'm trying to think. I'm going to have to go back and fill these names in. I had a dean for interdisciplinary studies, ran the interdisciplinary studies center in the Bechtel Center, and I don't remember who, because I had several. My dean for undergraduate affairs was Arthur Bergen, an electrical engineer. Then he had an assistant dean working with him, Tom Lapsley.

LaBerge: Were these all faculty?

Pister: Yes, all the deans were faculty. In those days the title dean was only given to faculty members of the Berkeley campus. That's since changed, I've noticed, but in the old days, it was all faculty. I had a dean for--I've forgotten the title. The responsibility was for the

office of research services, which was essentially the contracts and grants offices for engineering and for development activities and that was Bob Oliver from industrial engineering and operations research. All together I had seven associate and assistant deans. It was a fairly large staff, and they were augmented by seven department chairmen, and that group formed an advisory body that met on a regular basis. I also met on a regular basis with the seven department chairmen and my associate dean.

So those were the two major bodies. One was an administrative group of the department chairmen, which met with me because they were the administrative officers for the College of Engineering. They had budget control for the delivery of teaching and research programs in the college, whereas the other group I considered to be an advisory group. They had different responsibility to give me help on policy matters in the college. Anyway, those were groups that I put together. As I said, I had a wonderful secretary in the person of Billie Greene that I had met at the banquet in June, 1980, when the Bechtel Center was being dedicated.

At that time I worked with Dave Brown, who is a long-time, well-experienced budget planning officer. He had served George Maslach; he served Ernie Kuh, and he served all during my term. He's since retired, but he knew the college inside and out and is one of those senior management people in the university that makes the place possible. There are people like that in every department and school and college. Fortunately, or as I said with the amateur administrators that we have, we'd be in serious trouble. I might mention here that I felt that I was really substantially assisted by the experience and training that I'd received in the navy in administration.

LaBerge: I remember you mentioned one of your officers who walked around and--I can't remember who this was.

Pister: Oh no, that was way back when, yes, when I was a young ensign on active duty that I learned from that experience that it's a good idea to walk the territory for which you have responsibility. I did that as a dean, as a chancellor as well at Santa Cruz. The thing I was thinking about particularly was my experience in the naval reserve where I had, ultimately in the 1960s, command responsibility for a unit when I was a commanding officer, had to write the fitness reports, that is the performance reports for my officers, and was responsible for a group of very diverse people from young draft age kids--this was during the part of the Vietnam War--to very senior experienced construction workers who were petty officers and really knew their business very well. This diverse group of men presented an often interesting challenge as to how to motivate them, how to work with them to enhance their readiness to perform the functions of a construction battalion should we ever be recalled for active duty.

The experience I had in leading a group and setting up an organizational structure and making it work, motivating people and not to be forgotten, dealing with an incredibly structured bureaucracy, which the navy is, proved very useful. There was a way to do everything and if you knew how to do it, you could do it. If you didn't know, your letters would go astray and nothing would work. So in a sense that experience profited me enormously in doing academic administration. No one in the university ever talked to me about leadership, about how to deal with people; faculty are selected using a set of criteria that have virtually nothing to do with being a good leader, certainly not anything to do

with how to administer a group of very independent, very self-confident, goal-oriented people who fancy that they don't need a leader.

Each summer I took two weeks of active duty for training, some of which was less helpful than others. One I recall early on in my career, I took a course over at Treasure Island. It was called instructor training, how basically to teach. So naturally, I as a young assistant professor, felt there was very little I could learn from that course. The fact is there was a navy instructor's manual that I had to learn. The amusing thing is that in that course, that two-week course, the following thing happened. The first day we were there, they gave us the final examination. I got the highest grade in the class on the final examination. Two weeks later we took the same examination, and I got a lower grade [laughter] after having the two weeks of the course. So much for that one.

LaBerge: Pre-test and post-test.

Pister: That doesn't speak too well for me, I guess, that I degraded during the--

LaBerge: Sometimes you know too much. [laughter]

Pister: That was the problem, I guess. Anyway, I got started in my decanal experience in 1981.

Marily Howekamp, Development Officer

Pister: I had the good fortune of inheriting a development officer in the person of Marily Howekamp. Marily had been hired the previous October to do development work for the College of Engineering. There had been very little organized development activity in the College of Engineering. It really started with Ernie Kuh and the campaign to get the funds to build the Bechtel Center. To his credit he got the organization going to do the fundraising, to find the private funds that were necessary to build the Bechtel Center, which is a wonderful addition to the College of Engineering. On the other hand, Marily came on after that had finished, because the follow-on to the Bechtel Center campaign really was to develop an organization and a whole set of protocols that would use the Bechtel Center experience as the springboard for the continuing program to raise private funds for the college. So thanks to the wisdom of our provost at the time, George Maslach, George put enough money in the college budget to hire a development officer for, I think, three years.

LaBerge: Now he was provost of the campus?

Pister: There were two provosts--the campus was split between the professional schools and colleges and letters and science. George was provost for the professional schools and colleges. That structure persisted until [Chang-Lin] Tien changed it. Marily had been hired in October of 1980. Marily had come from the alumni association, I think, previously, but I don't remember that she had a lot of experience at fundraising. But she had the personality and the ability to really develop into an absolutely superb fundraiser. She was a great tutor for me because she learned how to do it and learned how to teach me to do it as well and to administer a substantial volunteer organization, which we

developed over the 1980s. We were extremely successful during that decade when the campus launched its first capital campaign under Mike Heyman, the Keeping the Promise Campaign that was focused on the biosciences. On the other hand, we had a computer science building project and a number of others in that program, and I'd like to say more about that later. At any rate, that was a very important process to get started, the process of building a fundraising organization.

Let me just add at this point that in 1981 and '82 at least for several years, I would say, I had a real challenge with my department chairmen and faculty to explain and to justify in their eyes that my efforts to invest in a development organization, fundraising organization, were justified. The typical reaction of a faculty member would be, and I would've probably said the same thing were I not dean, well, this is a state institution, state-supported institution, and why are we asked to go out and raise private money? Bear in mind, this was the 1980s. There had not been a culture of private support for Berkeley. I remember during the capital campaign of the 1980s, we turned up the information that one third of the buildings on the campus had been privately funded in the history of the university. However, this was not commonly known on the campus.

I pause to clarify this--outside of Berkeley, the university means the ten campuses of the university. On the Berkeley campus, the university and the Berkeley Cal campus are coincident, congruent. So when I've been at Santa Cruz or in the president's office, I have to be very careful to distinguish between the Berkeley campus of the university and the University of California. You remember I mentioned Bob Sinsheimer's reflection on that topic when he described Al Bowker, that after all when Berkeley spoke, everybody listened because wasn't Berkeley the University of California? [laughter]

LaBerge: So you had to convince the faculty.

Pister: I had to really convince first, the department chairmen and then the faculty, that it made sense to invest in building an organization, which I had to do and of course, that takes resources to do that. As we became more successful, I think it was less of a problem in their eyes. Certainly the department chairmen began to understand this because I was able to start giving them discretionary money by virtue of the fact that we were building a discretionary private fund base in the college each year.

LaBerge: How did you go about convincing them?

Pister: Just by saying that I can't go to the chancellor or the provost and take my shoe off and pound on the table and expect to get any money, because he's made it clear that he won't do it. He didn't have the resources at the time, and there was no possibility that I could get a bigger share of the Berkeley pie for engineering. Mike often told me that he wasn't going to create a Berkeley Institute of Technology.

LaBerge: These were bad economic times, too.

Pister: I can't remember in the grand scheme of things whether we were worse off then than we are now or whatever, but at any rate it's pretty clear that we weren't going to get any more state resources. The other thing I think, we were gradually becoming aware of this, and I remember first using the term in the early 1980s that, and I think in all modesty, Mike Heyman picked the term up from hearing me use it, I said, we're not a state-

supported university. We are a state-assisted university, and that term state assisted has taken on a much more profound meaning over the years if you look at the percentage of our university budget that's supported by the state, how that's eroded over the years. It's a dramatic drop from earlier days, even in the more recent past. So building up a fundraising organization was an extremely important matter, and I'd like to come back to that again.

LaBerge: Did you know that going in? I mean, like, for instance, did Dean Kuh tell you this?

Pister: No, not at all. Mike hadn't been a chancellor yet. He didn't know much about fundraising either. He was a law professor. What would he know about it? He's learned a great deal too about fundraising by virtue of the fact that he was secretary of the Smithsonian and he was successful as a chancellor, I might add as well.

Nishkian Chair

Pister: No, the only one was George Maslach who said you're going to have to raise the money for endowed chairs. I perhaps ought to pick up on that. Indeed early on, it was 1982, out of the blue, I was contacted by Byron Nishkian. Byron was a civil engineer obviously of Armenian extraction. His father Lev Nishkian had a very well-respected structural engineering consulting firm in San Francisco. Byron was a member of that firm. He and his wife Ellie gave the first endowed chair for engineering, first in my term, and indeed the first fully endowed chair in the College of Engineering in 1982.

I remember well having a dinner at University House that Mike hosted, inviting the Nishkians and some very close friends of theirs to celebrate that first endowed chair. For the occasion, I learned a greeting in Armenian, which I can't repeat. But it's interesting because, as I mentioned, subsequently I've become a trustee of the American University of Armenia, but at the time of course, I had no idea that I'd ever be put in contact with more Armenians than through this chair. So Ellie and Byron endowed this chair in structural engineering, which was really a wonderful start for me. I have to say that before I finished my term as dean, I think we had increased the number of endowed chairs in the college to thirteen. So it was a wonderful introductory experience.

LaBerge: How do you decide who gets the endowed chair?

Pister: That's essentially an academic personnel protocol. Since we had none in the college, as dean I developed the protocol for doing this in consultation with the department chairs and the faculty. It's essentially a faculty-based selection process. At least in the College of Engineering the way we did it, when a chair became available, members of whichever would be the right constituency would be involved. If it were say in civil engineering, members of the faculty were polled in confidence to propose names of people. Then the dean appoints a confidential review committee to review the applicant pool and make a recommendation to the dean. The dean then forwards that recommendation to the chancellor's office. He has it reviewed by the Budget Committee, and ultimately the chancellor appoints the endowed chair.

Roy and Chester Carlson

Pister: In 1985 thanks to a colleague in civil engineering who had been only a part-time member of our faculty, but had been very closely affiliated with the Department of Civil Engineering for many, many years, a gentleman by the name of Roy Carlson, was gracious enough to provide the endowment to fund a professorship of engineering, which was designated for the dean of the College of Engineering. So that chair was created and accepted by the regents, and I was fortunate enough to be named the first Roy W. Carlson Professor of Engineering, a title that I retain even today as an emeritus, Roy W. Carlson Professor of Engineering, Emeritus.

I'd like to just take a minute to say something about Roy because he was an extraordinary person. He developed instruments early in his career. He did his undergraduate work here and graduate work at MIT way back in the twenties. He developed instrumentation that was subsequently widely used in all of the large concrete dams in the world. They were called Carlson meters, and for many years he made these meters in his own garage so to speak. Berkeley staff people often went over and worked with him in developing these things. They were devices that measured the temperature in concrete dams and also measured the stresses in dams, called Carlson stress meters. These meters are extremely important in the construction and operation of dams. Roy was intimately involved in the instrumentation of Boulder Dam. It's important to know the temperature distribution in dams because during the curing process the dams have to be cooled, otherwise the heat that's released in the hydration of the cement creates expansions that create cracks in the dam. When a large massive concrete structure is constructed, is poured as we say or placed, and there has to be a substantial cooling network, ice water circulated through the pipes to reduce the heat in the concrete to prevent cracking. So Roy's temperature sensors were critically important, and then subsequently after things have calmed down, these stress meters gave an indication of whether or not there is seepage under the dam that results in stress patterns that might be deleterious to the integrity of the dam. So Roy worked on these things over the years.

Probably if that's all Roy did, there wouldn't be a Carlson chair. I think it's worthwhile to explain what that means. Roy grew up in southern California along with a cousin by the name of Chester Carlson. Chester Carlson was like Roy a very innovative, very inventive person. At one point, Chester wanted to become a lawyer. He was too poor to buy the necessary books. So he spent evenings in libraries reading law books and often wanted to copy the law books and found that was a very, very time-consuming and difficult operation to copy the law books. So Chester Carlson became interested in developing a technique that would allow one to copy books or copy manuscripts or whatever. To somewhat compress this story, Chester Carlson did the early work that led to the discovery of xerography. In fact Chester in the early days went around with his crude Xerox copies, if I may use that term, because it hadn't been coined yet, and had very little success in convincing any company that it was a technology that was going to go anywhere. Roy lived into his nineties and I used to visit him regularly to talk about his life. He talked about Chester a lot, and on one occasion, he said he went with Chester to, I think it might have been, the A.B. Dick Company, which was a well-known company that did --

[22A]

LaBerge: Right, with the A.B. Dick Company.

Pister: Yes. To try to interest them in Chester's crude xerography work. They were unsuccessful there. Roy mentioned to me, "You know we came out of that meeting, and Chester wept tears because nobody would buy his idea to make a copier." Well, ultimately Chester was successful, and I think, my history may be in need of correction here, but I think originally he sold or he managed to have this Xerox process licensed to the Land Corporation. Ed Land was the one who invented the Polaroid camera, and I think that's the way it went, but I'd have to go back and check that to be sure. But ultimately of course the Xerox Company got a hold of the license for this process and to copy something meant to Xerox something or vice versa. At one point obviously, Roy, perhaps at more than one point, Roy was able to buy into the company at a good price, so that the Carlson chair really is a Xerox product.

LaBerge: Too bad you can't copy that. [laughter]

Pister: Roy, as I remember here, at one point Roy got tired of dealing with his broker. So he bought a brokerage firm

LaBerge: Do we know which one?

Pister: I don't remember which one it was, but he was a very successful person in his life, not only in terms of financially successful, but up until his death he was thinking a mile a minute all the time. He was just a marvelously creative, inventive person, big tall Scandinavian guy, just a wonderful person to know and to work with. I have nothing but great memories of Roy Carlson.

LaBerge: That's a great story.

Pister: Yes. Chester Carlson's life has been written up in mechanical engineering circles. I remember reading a history in *Mechanical Engineering* magazine, but probably the connection to Roy is not that well known or vice versa. There are other things that happened in this period that I want to call attention to.

Commitment to Underrepresented Minorities in Engineering

Pister: Apart from the development activities that led to the chairs that I've talked about, one of the most important things that happened was the initiation of my commitment to providing access to engineering for what at that time were called underrepresented students in engineering. That meant ethnically underrepresented, as well as gender underrepresented. So we were targeting African American, Latino, Chicano and women students of any ethnicity. They were all really way underrepresented in the College of Engineering at that time. I remember that spring 1981 the admissions process was in progress, and I received a call from [W. M.] Mac Laetsch. Mac at that time was the vice chancellor for undergraduate affairs and admissions was part of his portfolio. He called

me and he said, "We're not doing well in admissions." I remember that Mike Heyman when he came in, in his expression of his vision for Berkeley, he mentioned diversification of the campus as one of his major objectives. So Mac had brought this to my attention. We're not doing too well in engineering. So that was really the beginning for me of what turned out to be a lifelong commitment to work on access problems, to create equality of access for students in, not only engineering, but in all fields in the university.

LaBerge: But even before Mac Laetsch called you, did you have this in mind? Because it sounds to me from things that I've read that this was a part of your philosophy.

Pister: Well, certainly it was, but I hadn't done anything except express views. I'd written letters of support, but I really hadn't made this part of my work. I made some appearances at MESA events in Oakland, but it wasn't a major item of my daily work plan. In the college at that time I had a person by the name of Mildred Wyatt who was working on minority programs in engineering. With her assistance and really at her suggestion, we put together a grant application and sent it to an organization called NACME. It's the National Action Council for Minorities in Engineering. It's headquartered in New York. It's essentially a corporate America sponsored organization. The current president is a very well-known respected figure, John Slaughter, who was president of Occidental at one time, a director of the National Science Foundation, an African American gentleman, highly respected person in the United States. He's now in that position. But at any rate, I don't remember who was president at that time.

We applied to NACME. We received a grant of $21,000 and on the basis of that grant I established a program, which we called the Minority Engineering Support Program, MESP. That program was designed to attract and retain underrepresented students in engineering at Berkeley. Later on that program was renamed the Minority Engineering Program to make it congruent with a statewide effort that was connected to the MESA program. MESA had been focused on high school preparation for college and what we needed to do was to create a program that was focused on undergraduates initially. Later on I added a graduate component to that, but at this point we were just getting it started. That required ultimately as this whole program emerged, a much larger organization, and I think I'll postpone talking about that until we talk about the diversity more broadly. But it was the initial expression of a commitment to diversify the undergraduate program in engineering that grew substantially in the next decade.

LaBerge: Could we talk about admissions? Did the College of Engineering, did it and does it have a separate admissions or does it go through the campus?

Pister: At that time at the Berkeley campus, engineering admitted its students independently of the admissions office.

LaBerge: That's what I thought.

Pister: That's since changed now in the recent years, but at that time we did our outreach work. We screened the applications. We used faculty to do that and ultimately made recommendations. Of course, we couldn't admit students. We recommended their admissions to the director of admissions. But that was entirely done within the college. However, that's been changed.

A related issue there. Early in my first year I was asked to meet with a group of Black students in my office. This was really my first experience in meeting a group of African American students. I didn't know what was on their agenda, and to be honest I was quite apprehensive about that. I still remember because it might have been ten or twelve that met with me that first time sitting around the perimeter of my office in McLaughlin. Really, it isn't clear what they wanted or what they expected of me. Except I think in retrospect, they wanted at least to be given the opportunity to be present with the dean and to express how they felt, that there were things on the campus and in the college that they felt were not responsive to their needs. Just like, gosh, we're not entirely happy here, and we'd like you to know that, and what can you do to help us. It opened a gate, and I must say it was a gate that I'm happy to have opened because it gave me some sensitivity, which I needed, and it made me reflect on my own experience at Berkeley. I think I've mentioned what a culture shock I went through in coming to Berkeley from a rural community and finding it a very difficult adjustment. I began to see why these students would possibly find the same kind of adjustment to be troublesome and very taxing. Indeed, my experience in those ten years as dean was when we lost students from minority communities, it was usually not because of their academic situation but the social situation, the tensions that they lived in with their families back home, or their life on the campus or off the campus in the area that was troubling them, and not because they weren't doing well academically. So anyway, that was a very important meeting. Just to jump to the end, I'm very proud of a plaque that was given to me sometime during my administration by the Black Engineering Student Society, giving me credit for the work that I had done in behalf of the Black students.

There were several other things in those early years in the 1980s that I'd like to reflect on. One very important one was when I moved into the third floor of McLaughlin Hall, which is the dean's offices. It was a series of different offices that really looked pretty shabby. I remember early on saying this and my budget officer felt the same way, and said, "This is not the kind of place that you want to bring people from the corporate world in to convince them that they ought to support engineering. So we better fix up the dean's office, the suite of offices." There's a whole side of the building. So he found some money. Dave Brown was wonderful. He always had pockets that often he didn't tell me about where there was money, and he found money to do a major redecoration. So we moved the dean from one end to the other end of the building to a corner and redecorated, and here my wife Rita had a major role to play. She and I went to San Francisco to the whatever you call those decorative places--

LaBerge: Galleria or Showcase or whatever.

Pister: Galleria, and we looked at furniture. We looked at the whole bit. We got a whole new suite of things for the office, including carpets and all and really fixed the place up so it looked much different than it did when I came in.

LaBerge: So was she sort of like the coordinator of it all?

Pister: She was the design consultant in terms of styles and colors since she's an artist person. It made a huge difference for which I'm very grateful.

There were some other events early on in that first year I'd like to mention. It is associated with Charter Day, the Haas International Award. It's an award given to an alumnus or alumna who comes from outside the United States--

LaBerge: I think it is Charter Day.

Pister: Yes, okay. The first year when I was dean, the winner was a person by the name of K.T. Chang. Chang was vice president of Tsinghua University in Beijing, and he had done graduate work here in civil engineering. He was probably the foremost hydraulics engineer in the People's Republic, and we brought him here and I had the great pleasure of meeting him and having a dinner for him in the Bechtel Center. He gave us a videotape showing the damming of a river in China in creation of a big hydroelectric plant and all, a very interesting man who explained to us that during what was it, the Red Guard days, that period of Chinese history in the last century that really set them back terribly because of what happened. Here he was the leading hydraulic engineer in China, and he was sent out to work on a farm, basically work in the fields. It was an example of why China got set back. That was the beginning of a whole series of events like that where by virtue of my position and the stature of the college, I was given the opportunity to meet really outstanding international figures. That will come up subsequently as well.

LaBerge: Okay. How about being elected to the Order of the Golden Bear?

Pister: That's right. I became a member of the Order of the Golden Bear. I had heard about the Order of the Golden Bear. They meet in what we used to call Senior Men's Hall. I don't know the right term, the log cabin by the Faculty Club.

LaBerge: Did that occur because of being dean or--?

Pister: No, I don't know why. I don't know. I should know the criteria for admission to the Order of the Golden Bear. At one time it was thought to be a secret society. I've been in the Order of the Golden Bear building, that log cabin, which I'll still call Senior Men's Hall, I think only three times in my life. I was there at the time I was initiated. I subsequently went to the initiation of Chancellor Berdahl, I believe. The first time took place back in the 1940s when I was a student here because we had a dance there. Since the statute of limitations has run out I--

LaBerge: Now you'll tell the secret.

Pister: I'll tell the secret. This would've been during World War II when I was in the navy. Again, it's a good thing nobody ever found out about this, or I would never have been a commissioned officer in the navy. [laughter]

LaBerge: Or the dean of the College of Engineering!

Pister: Because of spending the treasury of Chi Epsilon. We had a student dance there, and in those days if you wanted to use university space at that time, you had to have, if you were a student organization, you had to have a faculty sponsor. Well, of course, I probably was president or social something or other of whatever organization it was. I needed to get a faculty sponsor. Well, I failed to do that in time so I--

LaBerge: Uh oh.

Pister: Uh oh. I wrote down the name of a faculty sponsor whom I had never talked to and who never showed up for the event, of course. That took care of that, but fortunately nothing untoward happened. I don't think there was any alcohol in the room, and nobody misbehaved, and thanks be to God, that's now water under the bridge.

SMiRT Conference, Paris, 1981

LaBerge: Yes. And I bet your children don't know that either.

Pister: I think nobody does except you and this tape now. I did not ever find that a matter of confession. Anyway, so much for that. There were some other things that I might mention. Certainly a highlight of that 1981 summer was when I took time off to go to, I don't remember which number it was now, a SMiRT meeting. You remember SMiRT, and this time the SMiRT meeting was held in Paris. So I went with Rita and our oldest daughter Tracy, and we went to Stuttgart to visit friends first and then went to Paris and stayed in Paris for the conference. I was still one of the organizers, one of the section directors for selection of papers and all. So I had a major role in that conference. The thing that I remember is that we stayed in a really nice, very French hotel. It was near the, you'll have to tell me the Bourbon Palace--near the museum of the sculptor--

LaBerge: Oh, Rodin?

Pister: Rodin, yes. Near the Rodin Museum. I can't remember the metro stop, but you would know it. Anyway, we came there to Paris from Stuttgart by train, and we arrived alas on August 15, which was a holiday, and I didn't have much French money unfortunately, and I couldn't find any place to change it. So we had a struggle. I didn't have enough for taxis even. So we struggled on the metro from one station to the other to get to this place lugging our suitcases and got to this hotel. Then we had no money for dinner. It was a hotel garni. So we went downstairs to the front desk, and the person at the desk--just like a mom and pop hotel--was good enough to just peel off, I've forgotten, how many hundred francs to give me money to go--

LaBerge: For dinner.

Pister: To go out and eat. Yes. No written IOU, nothing like that. He just gave me the money. This comedy of money went on during the entire conference because finally, I went to the conference, and I mentioned the name of Tom Jaeger who was the instrumentality behind this SMiRT program. He was a very innovative and very energetic young German. Tom used to like to get things over with very quickly. So I think the first or second day of the conference he asked me well, how much was your travel and I told him. So he just peels off U.S. dollars, hundred dollar bills, to pay off my travel on the spot. Well, for the life of me I couldn't find a bank in Paris that would change a U.S. hundred-dollar bill into francs. They were all suspicious.

LaBerge: That's right.

Pister: So it turned out there was only one bank in Paris that had the capacity to recognize an authentic U.S. hundred-dollar bill which we finally found somewhere so I could get the money to pay back this poor guy that had loaned me five hundred francs in the beginning. I just can't forget that. Those experiences stick with you for whatever reason. Anyway, it was a very pleasant conference and another vivid memory. You see I've forgotten all the technical work of that conference.

LaBerge: What you were presenting?

Pister: One evening we had a magnificent concert in Notre Dame, a symphony playing in Notre Dame. We sat there in the magnificent cathedral and heard this beautiful music. So those are the things that stick with one. Whether or not you did a better technical paper or not soon vanishes in the dust.

As I move along through these early years of deanship, there were some other major events. In 1982, I was honored by my College of Engineering at the University of Illinois Urbana-Champaign. I was named a distinguished alumnus of the College of Engineering. I went back in, I think it was April of 1982, with Rita, to receive that award along with several other colleagues, one of whom is far more famous, if not more notorious than I, Jerry Sanders, who has been the long-time president and chief executive officer of Advanced Micro Devices in Sunnyvale. I met Jerry for the first time there and knew him then later when I was dean because his company, AMD, had many Cal alumni in it, and he was very generous in supporting the college, I might add.

The other thing about that trip that I should mention is that it was the first time that Rita and I had a chance to go back and see from the street the place where we started our marriage together, which was 708 W. Vermont Avenue in Urbana. It was, as I mentioned, several rooms in a new house on the second floor. So we drove by, and the house looked the same, but that was that.

LaBerge: There's something special about doing that.

Pister: Yes. Of course, we spent our first days, married days, together there and our first baby grew up there.

Kris Graduates from High School; Goes to UC San Diego

Pister: The other thing in 1982 that was a major event for us that you have some experience with as well, our youngest son graduated from Acalanes High School. I think I'll have to insert here an amusing, in reflection, an amusing tale, but at the time was less amusing than it is today. There was an award ceremony preceding the graduate event, and our son advised us not to come to the award ceremony.

LaBerge: This is Kris?

Pister: This is Kris, yes, our now professor of electrical engineering son, Kris. Kris said no, there was no point in coming to the awards ceremony. We were surprised at that because Kris

had done quite well at Acalanes. But he sat in the back row up on the stage out in the athletic field. After the ceremony we observed why, because he didn't get any awards, and we could never understand why Kris didn't get any awards for this ceremony. In subsequent years, we learned from one of his sisters that the major reason probably was that he'd been in serious disciplinary trouble by virtue of the fact that he took his old Plymouth--what was the Plymouth Valiant--and had driven it around the newly resurfaced running track as if it were the Indianapolis Speedway. The administration of Acalanes High School looked very dimly at him driving his car around the running track. So I think that kind of wiped out all of Kris' opportunities to get any sort of honors at graduation although that didn't prevent Kris from being admitted both to Stanford and to UC San Diego, and to the great relief of his parents, he chose San Diego.

LaBerge: I'm sure. I wanted to ask that question before, the fact that you had two daughters that went to Stanford. That must've been a little bit of a leap for you to support it both philosophically and financially.

Pister: It's just fun we have putting down Stanford. I have great admiration and respect for Stanford. It's a wonderful institution. I know it best in engineering, but it's just a high quality place. Every time I visit there I marvel at the incredible complexity and richness of that campus. Since I've known two of the presidents, the current one and Don Kennedy, I have even more respect for the place and Gerhard Caspar as well, with both of whom I worked.

No, we were relieved that, pleased that Kris went to San Diego. Subsequently were very pleased because he got an excellent education there and also met his wife-to-be, Jennifer Sa, at San Diego, which is probably more important than the education, which is more easily replicated elsewhere than finding the right wife. As Kris pointed out, he saw her one day running across a field of flowers. Actually they met in an artificial intelligence class. [laughter]. Really a kind of interesting thing.

[22B]

Pister: I was talking about arriving in San Diego with Kris and all his stuff to get him situated in his room in Warren College, which is where most of the engineers hung out in those days at least. The San Diego college system is very different from the Santa Cruz college system, but it's still a residential college deal for them. So we got him situated there. Then we drove back with him somewhere, parked by a grove of trees, and it was time to say goodbye. I still remember to this day the feeling we had saying goodbye to the last one of our family who had gone off to college. He ran off into the trees, and we drove away. It was a tough experience for all three of us, we learned later on.

But anyway he survived, and more than that, the next year, well, after he finished his freshman year in the dorms there--and I won't talk about all the dorm stories--we learned what some of the dorms were like because I lived through some of that at Santa Cruz. The next year we bought a condo in what is now called University Town Center, I think. It's kind of in between the two major freeways that form a triangle in La Jolla. We bought this condo in '83 when there was virtually nothing over there. We said this is going to be a great investment. Well, Kris can live here, and he got some friends to live there and to help pay the cost of the condo and all. They lived there the entire time until he graduated. But during the subsequent years from '83 until he graduated in '86, in those next years all

of a sudden this became condominium city. He told me they had built 2,000 new units in the adjoining land. So the value of our condominium didn't really appreciate the way we thought we were going to do with this incredible investment in this thriving community. But we didn't lose money, and he had a nice place to live with his friends during the time he was down there.

LaBerge: We didn't talk about appointing new senior staff, which you did, and then setting new protocols or did we talk about that?

Pister: I talked about that in terms of the organizational structure that I put in place, the consultative process that I developed there, yes.

Dissent at Inaugurations, 1981 and 1992

LaBerge: What about the Heyman inaugural?

Pister: Yes, I passed over that. That took place in the spring of 1981. It was a ceremony in the Greek Theatre, and I can't remember now what all the fuss was about. Partly it might have been the management of the laboratories, Livermore and Los Alamos, or it could have been a whole bunch of things that were on people's minds. But the fact is the ceremony was one massive disruption from beginning to end. There were dissenters in the audience that were shouting, that were making all kinds of noises and all, and poor Mike had to get up to give his inaugural address with all of this heckling going on. He decided, I guess, from the beginning with the police to let it happen because he felt that if the police intervened and hauled any of these people out, it would get out of control. So he had the really unpleasant experience of having his inaugural really badly marred by the dissent that took place.

I guess looking back now to this event over the more than twenty years and then to my own inaugural event--I called it an investiture rather than an inaugural because of the budget crunch at the time, we didn't want to make more out of it than necessary. A little more than eleven years later, at mine, I had similar dissent, but I was fortunate enough to have the dissent occur, then peak and then basically disappear. So I know how uncomfortable it makes everyone feel when you've got guests from away from the campus. At my investiture then Congressman Leon Panetta was there, and Sam Farr, who was in the state assembly, and regents, of course, and others. It's a very uncomfortable feeling.

LaBerge: What were the dissenters at yours about?

Pister: Ah. The dissenters at my investiture were there for an entirely different reason. After the faculty marched in, the dissenters marched in carrying placards, and they were fussing about recognition of the graduate students as a union, a collective bargaining agency. They were being cheated, and why didn't the chancellor recognize them. That was one, and then no matter what I had said publicly or what my positions were, I was not doing enough for affirmative action to diversify the campus. So there were all kinds of signs and clenched fists and people acting out those issues.

Since you raised this, I don't think I put this on the record. I have to be sure that it is. It's in my Santa Cruz history, but since it connects to what we're talking about, I had the good fortune--Mike did not have the good fortune--in having an exorcist present that basically defused the dissent. [laughter] I don't know if you recall this, but I had an invocation, and the person that delivered the invocation was an Ohlone Indian--

LaBerge: I do. Now I remember reading that in your--

Pister: Patrick Orozco by name, and Patrick came with suitable symbols. He had an appropriate head piece and a drum cymbal or whatever you call the thing with little cymbals on the edges. After these dissenters were making all this noise, and he was introduced by the master of ceremonies as giving the invocation, he stood up and said, "I sense the presence of evil spirits in this gathering." He said, "My grandmother gave me instruction in how to deal with these kinds of situations." So he then went into, or invoked some sort of prayer chant that went on and on and on, but you can imagine the presence of this Native American person in Santa Cruz was a very powerful force. Since the Ohlones really owned that land originally, he had a great deal of credibility, and Patrick Orozco exorcised my investiture, and the dissenters basically were reduced to silence. There was an occasional cat call later on when Regent Meredith Khachigian, who was chairman of the board, spoke, but most of the time they were silent. Jack Peltason was president then, and Jack never got over that. He attributed this to my incredible foresight to have an American Indian give the invocation, but it was purely an accident, and the record will have to correct his misimpression as to my astuteness, but I'll take the credit for it now. I helped Patrick and I hope the Ohlone Indian people by trying to plead their case in Washington to be officially recognized as a tribal entity.

LaBerge: Did it occur?

Pister: I don't know whether they ever have been recognized--the Ohlones were spread out over California, and they've had a lot of trouble in getting officially recognized properly as a tribe. So that was an interesting connection from 1981 to 1992. The other thing perhaps I could add here, another graduation experience, just to complete these first five years of my deanship--apart from the preparations that were underway to get going for the capital campaign. I'll discuss that later on.

Jacinta's Graduation from Harvard

Pister: We had the opportunity to make a very interesting trip back to Harvard to take part in a Harvard graduation when our daughter Jacinta in June received her MBA from the Harvard Business School. Rita and I were able to go back for that to witness a graduation at the institution whose motto is *veritas*. You see *veritas* all over the place. [laughter]

LaBerge: Jacinta's the one who has a degree in mechanical engineering?

Pister: Yes, and anyway it was an interesting experience. There are two things, apart from the fact that it was hot and drippy wet because of the humidity. I don't remember where in the Harvard complex the graduation was held, but the amusing thing was, of course,

there's a tradition at Harvard that the baccalaureate address is given by a Harvard college student in Latin. All of the graduates have this address translated into English, and they applaud at the appropriate times, [laughter] when the address requires some response from the audience. That's one thing. The second thing is the tradition of the graduates of the business school when their degree is conferred, rather than to toss their hats in the air, they throw dollars bills in the air.

LaBerge: Does someone later collect them or--

Pister: I don't know what happens to the dollar bills, but anyway that's the way they do it. The interesting thing was the Harvard Business School organizes its students into sections. Jacinta was in a section with Leah Rosovsky, the daughter of Henry Rosovsky who was a colleague here at Berkeley and later went on, of course, to be dean of the faculty at Harvard, and later interim president at one time in an interregnum period. I wasn't able to see Henry there, but I was invited to a dinner. Rita and I were invited in honor of his daughter, and our daughter was able to go, but we missed it. I regret that because he's a very fine gentleman, and I've enjoyed reading his book on the university. I can't remember the title. It's an insider's view of how the university works, a handbook for the university. It's wonderful, full of his splendid wit.

One of the things I enjoyed in his book concerned J.K. Galbraith. I had the pleasure of meeting John Kenneth Galbraith who was a member at that time, an active member of his faculty. Rosovsky calls attention to the fact that in his book, I can't remember the technical term now, he describes the policy that governs social relationship between faculty and students. The admonition to faculty not to date or entertain any sort of relationship with students. After the policy was promulgated, he got a letter back from Galbraith saying, "Well Henry, I think it's too late now, but I'll have to tell you that I'm married to one of my former students." [laughter] Did I tell you the story that Galbraith told at a luncheon that I attended?

LaBerge: No, but tell.

Pister: It's good. Since I've brought this up, I've got to mention it. Sometime during this period, I can't remember--I think Galbraith might have been getting alumnus of the year award in fact at that time [at Berkeley]. He came out, and he is a former International House resident, and I was invited to a luncheon with him by virtue of the fact that I was on the board of directors of the I-House at the time. He told this marvelous story about his early years at Berkeley when he received his Ph.D., and he was teaching here and at Davis, agriculture economics, I think. He got an offer from Harvard at some incredible salary in the $2000-a-year range probably at that time. He went in to tell this to Dean Hutchison, I think it would've been at that time. Claude Hutchison's father, the Claude that I know, and the dean had already found out about this, and he said, "Galbraith, I understand that you have an offer for so many dollars a year from Harvard. Well, you're not worth that much to us." [laughter] So Galbraith went to Harvard instead of staying at Berkeley, which is incredible. I thought that was a marvelous story for him to tell on himself.

Conference in Bari, Italy

Pister: Well, let me finish this with a couple more additions to my seemingly endless travelogue. In December of 1984, I took part in what you might call a California delegation that was invited to go to Bari, Italy, to a new technology center that was created in southern Italy. This California delegation was organized by Archie Kleingartner, and Archie was the delegation leader, and he was in touch with an Italian businessman who was organizing this on the Italian side. I don't know the origin of this relationship. It was a group of academics from UC and some elected officials. John Garamendi and his wife Patty were in attendance and one other, I think, a senator from California whose name now escapes me.

Anyway, I gave a paper at this conference explaining how universities in the United States interacted with industry and government, what kind of partnerships and relationships we had set up in order to facilitate research and technology transfer and so on. I remember after we arrived at this event, it turned out that the California delegation was there more or less as kind of a formality. It was really a political event at which the minister of education from Rome came down to make a big splash as to how much the government in Rome was investing in southern Italy, the so-called *mezzo giorno di Italia*, the economically second cousin to the real Italy. The south of Italy has been a perpetual problem for Italy, of course, and there was a huge amount of television publicity. There were people, reporters, and cameras all over the place, and then these people disappeared, and they took most of the program time. So the rest of us were compressed to give our talks in a very foreshortened program.

I had the opportunity through all of this, since I didn't bother to try to follow what was being said, to compose an introductory paragraph to my talk in Italian. They had simultaneous translators there. So when I got up and gave my first few minutes in Italian, I'm sure the translators didn't know what to do because here's this American speaking bad Italian. So how are we going to translate this back to English or what. But anyway, I got a round of applause when I finished, probably because I switched to English. That's what the round of applause was for. But it was fun. I said my ancestors had come from Europe to California in search of gold but now the search was for silicon basically, and that was the coin of the realm and not gold anymore.

Just an incidental event since all of these trips always have a social element to them. A really high point there was to attend an event in the Cathedral of Saint Nicholas. Saint Nicholas of Bari, of course, was an early figure in the church. There was a magnificent cathedral dedicated to him there in Bari, Italy.

VIP Trip on the *Carl Vinson*

Pister: Then quite a different kind of cruise took place in 1985. I was invited to spend several nights on a nuclear carrier, the *Carl Vinson*, which is CVN number seventy. This was what they call in the navy a VIP cruise. A small group of us was invited to spend a couple of nights on the *Carl Vinson*, which was then in training maneuvers off the coast of San

Diego. So we boarded an airplane at Alameda Naval Air Station and flew down to San Diego a couple hundred miles off shore, and alas, we made a carrier landing, which is quite an experience in itself. It was an interesting experience to be there as a former navy person who had not spent a lot of time at sea. It was interesting to see another part of the navy. But I took a lot of interesting observations away from that visit.

First of all, I met the captain, whose name was Tom Mercer. Tom later became a rear admiral and by coincidence became the superintendent of the Naval Postgraduate School at Monterey. On the strength of our meeting out in the ocean in 1985, almost ten years later, he and I signed for our two institutions, Santa Cruz and the postgraduate school, a memorandum of understanding to exchange faculty and allow cross-registration of students between Santa Cruz and the postgraduate school. Then I attended the ceremony that honored him when he retired from the navy and left the postgraduate school, a beautiful ceremony, as the navy is quite good at doing. Complete to the ending just at the moment when the new commanding officer took over, and he and his wife walked down through a kind of alley with all of his officers on both sides. Just then three jets came over the place swooping low and the timing was just absolutely perfect. He was a very interesting man.

Another interesting thing was that his ship was the battle group commander's ship. The admiral on board, Jack Baxter I think, was his name, I'm not sure, turned out to be a graduate of Berkeley in mathematics who had gone into the regular navy and was the battle group commander on that carrier at that time. The amusing thing for me was that, here was an incredibly complex modern ship, five or six thousand people in the crew. If you went to, if you'd like to call it the war room, where the battle group commander is, where all of the information is collected, you were in for a surprise. The combat information center I think is the correct term for it. They have this huge plastic screen with all kinds of information on it, and the information was transferred to the screen by sailors standing behind it writing backwards so you could see it properly on the screen. Like here's a plane here doing this, and everything was in greased pencil on the back of this plastic screen. I'm told that the navy is still using this in a day when milliseconds and split second decisions have to be made about what target you're going to hit and who's where and your people are going at supersonic speeds, and here's guys writing with a greased pencil. I've never been able to understand that. Anyway, that was a funny experience.

Five Year Review, 1985

[Interview 12: March 4, 2002] ## [23A]

LaBerge: On Friday we were talking about your first five years as dean of engineering, and I understand you had a five-year review after that.

Pister: Right. University policy establishes a five-year review cycle for academic appointees in the position of dean, and I think now vice chancellor as well. So I underwent my first five-year review at the end of the 1985 academic year. I survived the review obviously because I remained in office for another five years, but in looking back at that event, I still

have some very mixed feelings that border on unpleasantness as a matter of fact. The first thing is the appearance of a letter from the chancellor to the faculty of your school or college, and it's a very straightforward letter saying well, your dean has been in office now for five years. Basically, what do you think of what he or she has done in that five-year period? I'd be happy to receive your comments, which will be held in confidence to me and to a review committee, also confidential. These kinds of letters in my own experience tend to be put aside and forgotten by the majority of faculty, but they are wonderful invitations to people who have any sense of being mistreated or not well treated by the administrator. So it brings out the critics.

Well, the review process took place and at a certain point as dean I was summoned to the chancellor's office. This was Mike Heyman, and Mike sat at his desk with a set of handwritten notes that he had prepared or someone had prepared for him about the consequences of the review committee's recommendation.

LaBerge: How is the review committee set up? Is it all--would it be engineers?

Pister: No, it wouldn't necessarily. The majority certainly would be engineers but it would include outside people. Of course, as I said, it's confidential. So basically the session consisted of the chancellor making comments about what other people felt the dean had or had not done. Essentially, it was just a series of comments, all of them critical I might say, and no basis for questioning the evidence upon which these judgments were made or who might have said it or why, and so the whole experience in my view was quite unsatisfactory. I remember one of the things in particular: there was an expression that well, the faculty had no real sense of the vision of the dean, where the college was going. I was really surprised by that because I had written such a statement and had sent it to all the faculty members. But of course, things like that coming from the dean typically are either ignored or chucked in the wastebasket by the majority of faculty who say, why do you trouble me with all this paper. Anyway it was, I felt, a very unsatisfactory experience. Of course, it had absolutely no bearing on what happened to me in the next five years.

But it's one of those things where you have to learn to separate yourself as a person from the position that you're occupying. People are focused on criticizing the position and not the individual because I wasn't aware of, maybe I'm naïve, that I really had people in the college who genuinely were displeased with me as a person. It wasn't that, I didn't have enemies so to speak.

LaBerge: Does the chancellor then make any comments of his own or ask you what do you think about this?

Pister: He obviously was not swayed by the criticism because he continued to support me as dean. I don't remember what Mike had to say, but I think I must've felt pretty low because I seem to remember complaining to Doris Calloway, who was my provost at the time, about the treatment that I received. I think she was more sympathetic, but, anyway, fortunately I don't remember when I was a chancellor having to do that. I initiated a review of my executive vice chancellor [at UCSC], but I don't remember it degenerating into that kind of a situation.

Keeping the Promise Campaign

LaBerge: Did you have any second thoughts though about continuing?

Pister: Oh no. I was supremely self-confident [laughter], and so I didn't feel I had done anything to deserve that kind of thing. I think it might be appropriate at this point to say something now about the Keeping the Promise Campaign that really got underway for real in the second five years. I'm trying to think where this came from. I guess, the chancellor had asked an outside firm to come in to do what is typically called a preliminary or precursor survey to get some sense of the potential for a capital campaign. So a survey was made, a limited survey, of different representatives of different constituencies of the university just to get a sense of what kinds of projects might be supported. I was really pleased to see in this preliminary survey that there was very strong support for a computer science building, which was very high on my list as dean for the College of Engineering, since we had only about 50 or 60 percent of our earned space for engineering, largely as a result of the incredible interest in computer science and electrical engineering. So our building was very strongly supported.

However, the campus had other plans for the capital campaign. I think they were quite appropriate in retrospect. Certainly I'd have to say that. The campus, that is the chancellor, was focused on the biological sciences. There was the possibility of a state match for any private funds that were raised in the capital campaign for biological sciences. So that was a major focus, and there were others. I remember the business school was in for a new building. So we were, well, I'm getting ahead of myself. So this was the way things stood up until the time that I had the annual meeting of my advisory board, which is a group of outside largely industrial people, some academics, that met once a year to review with me the state of the College of Engineering and to offer the benefit of their wisdom and experience in helping me move the college along.

Fundraising for Computer Science Building

Pister: It happened that I had invited the chancellor to come to that meeting to talk about the capital campaign and what his plans were. Mike came and dutifully did that, and then he, at some point made a statement, which in retrospect was perhaps the best thing he could have said, although he didn't intend it that way. He said, and of course you're interested in a computer science building, and that's on my B list for the capital campaign. Understandably after Mike left there was considerable discussion by my advisory board about the inadvisability of having computer science on the B list and not the A list. I believe the chairman of my advisory board and perhaps others--I know they wrote a letter--but I think one or more of them actually visited the chancellor.

LaBerge: Can you give me some names?

Pister: Well, it would have been Bob Pepper who had been the chairman of my advisory board at that time. Bob, by the way, was an undergraduate student in one of my classes. I knew him from way back when. He went on and got his Ph.D. at Berkeley in electrical

engineering and was a vice president of RCA. At one point he left RCA and founded his own company up at Carmichael, a very successful company. I'd have to add I just saw Bob and his wife at an alumni affair, and he and his wife have given one endowed chair and part of another endowed chair to the college. I'm glad I gave him an A in the course that I taught. [laughter] He was a sufficiently good student that I remember that. At any rate, Bob and others wrote and perhaps visited the chancellor. I don't remember what follow up I might have done myself. But the upshot of all of this was that the computer science building was moved from the B list to the A list and became one of the major campaign objectives for the capital campaign.

Mike subsequently told me some years later that he paid quite a price for this from some people on the campus to get that on the A list. I don't know who was upset with him for that but I guess anybody else that wanted to be on the A list that wasn't or people that were on the A list that didn't want competition. So we in engineering organized a major effort to raise money for the computer science building. I had some real skeptics from the college. I might say in fact, a former chairman of the Department of Electrical Engineering and Computer Sciences said to me that I don't know why you're doing this. We in electrical engineering know how to raise money, but the computer science people don't know how to raise money, and they're not going to be able to help you do this. There was a lot of skepticism at the time about the campaign.

I must say that in the beginning their skepticism was well founded. It took me a long time to get any major gift for the computer science building. The first gifts that we received ironically were from Japanese corporations. I remember in fact calling up David Gardner at one point--this was during his presidency--and asking him point blank his sense of, is this going to be embarrassing? Am I going to get into trouble for soliciting or receiving gifts from these Japanese companies for a computer science building? David said to me that he thought this was fine. He thought I should go ahead and do it. I remember MIT was going through a similar kind of soul-searching and had made it clear that they felt they were an international university and that any American company that wanted to do business with MIT was free to do so. But if Japanese companies wanted to do business with MIT, they were welcomed also. In retrospect, I think it was absolutely the right thing to do. Most of the contact with the Japanese companies was through electrical engineering at that time, and the quid pro quo I think was perfectly appropriate. I used to say over and over again that we're happy to have any American company that wants to give money to bring itself closer to the College of Engineering or computer science, please do so. The first company that did that was Lockheed Missile and Space Company in Sunnyvale, and this was thanks to one of our alumni who at the time was vice president of Lockheed in charge of the Lockheed Missile and Space division.

LaBerge: Who was that?

Pister: Dan Tellep. Dan went on to become president of Lockheed and ultimately Lockheed Martin, a wonderful man who was on my advisory board, I might add as well, and thanks to him we received the first major gift from an American corporation.

Gift from the Chet Soda Foundation

Pister: Let me follow that up now by an incredibly fortunate happening that really put the campaign in gear. At the time we might have had a few million dollars. The original goal was to raise about I think $32 million for the building. I don't remember exactly. We'd raised maybe $2 or $3 million at the time when this happened. My secretary, Marilyn Witbeck, received a call from a gentleman by the name of Gust Nichandros.

Gust was a graduate of electrical engineering back in the 1930s somewhere. I had met him because he came to alumni events. So I knew him. Gust called Marilyn and said he'd like an appointment to meet the dean. She had the good sense to not be too inquisitive and just schedule the appointment. So Gust walked in and sat down, and I can still see him sitting there in the chair across from me. We were both in the navy in World War II. So I didn't know really what he was going to talk about, but we kind of just shot the breeze and told sea stories about the navy for a while. Then at a certain point Gust said to me, "I understand that you're looking for a naming gift for the new computer science building." I said, "Yes, we certainly are, Gust." He said, "Would $10 million do?" I said, "Gust, that sounds great, but I need $15 million." So that reminded me, that was our target, $30 million, because to name a building at that point the private funds had to be at least half the value of the cost of the building. So it would've been $30 million. I said, it'd have to be $15 million. So he said okay. Well, I remember he said, "I'm president of the Chet Soda Foundation." Mr. Soda was recently deceased and he had established this foundation, and Gust was the president of the board of trustees for this Soda Foundation. He said, "I think I can get the $15 million from the foundation." Chet Soda was not a Berkeley alum. He was more or less a self-educated contractor and developer.

LaBerge: Had you ever heard of him or met him?

Pister: He was an early co-owner of the Oakland Raiders, and was well known in Oakland certainly, but I probably had seen his name, but I didn't know him. Anyway, so that led to a formal presentation before the Soda Foundation board of trustees down in Oakland. I remember going to that meeting of the trustees to make our presentation--

LaBerge: You and other people, or alone?

Pister: No, it was a team. I was accompanied by the chancellor and by Vice Chancellor Mac Laetsch who was, I think, at that time vice chancellor for development, and a very important wonderful friend of the Berkeley campus in the person of Gene Trefethen.

LaBerge: Oh yes. I interviewed him.

Pister: Oh, you did? Oh, Gene was such a wonderful fellow. Well, we assembled there along with a beautiful scale model of the computer science building. We opened the meeting with Gene Trefethen talking about early days in Oakland, how he knew Chet Soda, and he did a wonderful job in kind of setting a context for this discussion. Then he transitioned that into his love of the Berkeley campus and what a great place it was, and this would be such a wonderful memorial to Chet who really understood the importance of engineering but had not gone to Berkeley. Then I was called upon to make a brief presentation about Soda Hall. I still remember how nervous I was. I think I could hardly

stand up while talking about the different floors of Soda Hall and what we were going to do in each of these floors and all. Anyway, so we went through the presentation, and sure enough, subsequently we received a commitment for the $15 million gift for Soda Hall.

Construction of Soda Hall

Pister: By the time, by 1990 when I left the position of dean, I think we raised $23 million of the $30 million. Well, it turned out the $30 million wasn't enough. The final price was I think $36 million, but subsequently other sources of gift support were uncovered. So the building was built. It is a building named Soda Hall in honor of both Chet Soda and his wife, his first wife. I should mention that Chet Soda's first wife died before he did. A young woman who was the nurse for his first wife in her terminal illness became Mrs. Soda the second.

LaBerge: That sounds a little bit like Henry Kaiser.

Pister: Is that right?

LaBerge: The same thing happened to him, yes.

Pister: Okay. And you probably learned that from Gene.

LaBerge: I did.

Pister: Yes. Okay, so the second Mrs. Soda was a very sweet person, but her background was a source of some complication for our obtaining the gift. There's a really interesting example of what I have called, my kids always laugh at me, the complicated spiderweb of life, the way we're all tangled in here together. [laughter] The second Mrs. Soda was a graduate of Holy Names College, and also one of the members of the board of trustees of the Soda Foundation was a vice president of Saint Mary's College. So there was a very strong pull towards Saint Mary's and Holy Names College in all of this.

LaBerge: And you weren't opposed to either of those places.

Pister: No, I wasn't opposed to them except that I didn't want them to pre-empt my $15 million gift. [laughter] But to their great credit they respected the importance of the Soda Hall gift, and I might add both Holy Names and Saint Mary's have facilities named after the Sodas.

LaBerge: I knew Holy Names did.

Pister: The Soda Foundation gave a wonderful student activities center to Saint Mary's College as well. I've been there and seen it and enjoyed it. Soda Hall was funded essentially, substantially funded by the time I finished my deanship.

Just to put on record, I want to acknowledge at one point during the whole process because it's not only a question of getting the resources, one has to of course appoint an

architect and do both the translation of the academic program requirements to architectural requirements and all of that. At a certain point a professor of computer science, Carlo Sequin, became the resident architect for the building. Carlo is a physicist by training and a wonderful computer scientist as well. He really got interested in the translation of the academic programs of this division of electrical engineering and computer sciences, the CS division, translating the programs into the architectural structure of the building. I'm sure he drove the architects crazy in doing this, but he really succeeded in, I think, getting a splendid computer science building built as a consequence of this. He needs to be recognized as one of the architects of the building.

LaBerge: Who are the official architects?

Pister: I know who they are. But I've forgotten at this point. They were very well-known architects even though their external finishing material is not universally appreciated--

LaBerge: The green. Yes.

Pister: The green tiles. There's another dimension to this that I have to mention, too. The computer science building is, of course, at the corner of Hearst and Leroy, and it's an intrusion of the university across Hearst Avenue, which in the eyes of people in the neighborhood is, of course, always greeted with some suspicion and hostility. Among the people on the northside, the friends of the northside or whatever they might have been called, who was not in favor of the building was Susan Cerny.

Her husband, Joe Cerny, he was the dean of the graduate division, in the senior cabinet of the chancellor. Well, his wife was an outspoken critic of the building. At any rate it was a very sensitive matter, of course, whenever the building was discussed in California Hall because of the [laughter] complication of the spouse being on the other side. Indeed we were threatened with a lawsuit. I think there might have even been a suit. I was deposed by the lawyers for this group when I was dean. They were challenging the environmental impact report, of course. I don't remember how far it went. The suit or the intent to sue was never successful so that we came out all right in the final analysis.

Decommissioning the Nuclear Reactor

Pister: That brings up another interesting episode that's connected with the Soda Hall construction that I see I haven't noted, but I certainly want to put on record. Soda Hall was built on the site of the College of Engineering's nuclear reactor. Back in the sixties, when Etcheverry Hall was built, it housed nuclear engineering, and nuclear engineering had a major laboratory appropriate to a nuclear engineering department, which had a test reactor in it, a pool-type reactor. Well, for years the city council of Berkeley admonished the campus for having a nuclear reactor within the city limits, particularly since Berkeley had declared itself a nuclear free zone. We respectfully listened to their protests, but of course, up to a certain point, the nuclear reactor was an important part of our teaching and research program.

However, there came a point that it was clear because of the change in the nuclear power industry in the United States that this nuclear reactor was really not doing much for our educational programs. It was being used by archaeologists and others for their own purposes, but it wasn't part of our program. So that, plus the siting of Soda Hall on the site ,led to our decision to decommission the nuclear reactor. Well, that's an easy thing to say. But the complications of decommissioning that reactor: we had to satisfy a whole series of federal statutes that govern decommissioning, not to mention a whole series of state requirements for decommissioning. I was fortunate to have a very knowledgeable and capable person in the person of Professor Tom Pigford in nuclear engineering who handled the decommissioning process for us.

[23B]

LaBerge: Professor Tom Pigford was in charge of decommissioning the reactor.

Pister: Yes. The process moved along well. At a certain point we received a communication from someone representing the city council stating that well, they were pleased that the reactor was being decommissioned. But of course, under no circumstances could the fuel rods be removed through the Berkeley city streets since Berkeley was a nuclear free zone. [laughter]

LaBerge: I'm sure you weren't laughing about this at the time.

Pister: No, I think it was such a ludicrous thing; I don't know if they expected us to come in with a helicopter or something and fly it out over the hills some way. Well, I think that was more posturing than anything else because fortunately for us the Department of Energy's policy on moving nuclear material was such that it was always done on a moonless dark night without any prior announcements. So I don't even know when it happened, but at one point I was told that the nuclear fuel was gone. I don't think anybody in the city of Berkeley was any the wiser for it. I don't remember anybody ever complaining that you didn't tell us or why did you do it that way, but it happened, and I'm relieved that that's over with. So the final step in that was to have the entire area gone over with a radiation counter to be sure that there was no, that the level of background radiation was sufficiently low so that anything higher than a cricket could move through there without danger of any damage to the tissue.

Gift from the Kribbs Family

Pister: This incident actually predated the formal capital campaign. Thanks to my development officer, Marily Howekamp, a more or less routine telephone call from a donor to the college turned into the largest unrestricted gift that the campus ever--

LaBerge: The campus?

Pister: Had received up until that time and certainly it was the largest one for engineering. She had a call from a gentleman named George Kribbs. George Kribbs was a 1924, I think, graduate of the College of Mining. He was a petroleum geologist. George went from his

Berkeley degree to Midland, Texas, and was there when the Permian Basin oil discovery took place in Midland, Texas. So he was there right from the beginning, and as a petroleum geologist he knew quite a bit about where one ought to purchase land and make the right kinds of moves to get ready for the incredible bonanza in oil that occurred in that basin in Texas. So he and his wife had retired to the Rossmoor equivalent at Laguna Niguel. He had been giving thousand dollar annual gifts, I believe, to the college. One day he happened to be on the phone with Marily Howekamp, and I don't know, I can't remember now how the conversation turned this way. But apparently he had decided to give his estate to a Masonic Lodge in Fresno. But somehow they displeased him for one reason or another. So he was not happy with them anymore. Thanks to Marily, she opened the door for discussions with the College of Engineering.

So Marily and I on the strength of that telephone call went down to visit George and his wife, very lovely people. We talked to them about the college and the need for support and the fact that in order to keep our programs and our operating budget up to the level we needed, we had to depend more and more on private resources. Well, it was not an easy sell. I think my associate dean, Bob Oliver, also made a visit to the Kribbs, but at some point we got them to agree. I shouldn't say got them to agree. They decided to agree to make a substantial gift to us.

What the gift was was a revenue stream from the oil and gas leases that they had on property in this Permian Basin. So we became the beneficiaries of a long-term series of payouts from the leases associated with the gas and oil that was produced on these properties. I think they're called wellhead leases or something like that. It amounted to, this is back in 1985 or so, when we got the gift, three or four million dollars a year in unrestricted money for the college. So I made the decision to invest half of that money in an endowment and to use the other half as discretionary income for the college. As far as I know, that's still being honored. I don't know what the status is--I haven't checked on this. It was certainly the largest unrestricted gift for us. There might have been larger unrestricted gifts to the campus.

It was a marvelous act on their part, and we celebrated that gift and their generosity in 1986. We invited the Kribbs and maybe eight or ten of their friends to have a lunch with us at the Ritz Carlton at Laguna Niguel. Rita and I and Marily Howekamp hosted the event, and it was really wonderful because they were all people who were at that time my current age or older. People in their eighties who were good friends of the Kribbs, and the Kribbs were understandably very proud and pleased and honored to have this recognition.

LaBerge: And they didn't ask for a name on anything?

Pister: No.

LaBerge: Isn't that interesting?

Pister: They had no children, and Mr. Kribbs predeceased his wife. I believe both of them are gone now. Anyway, that was a very wonderful event during that period. Along with the Soda gift these were the major highlights of that capital campaign. I think one of the most rewarding things for me was to see the incredible support that engineering received from its alumni and friends during that campaign. We did extremely well in that campaign, and I had a wonderful advisory committee, well, not only advisory but volunteers who were

out raising money for me. The chairman for me was a civil engineering grad by the name of Dick Hall. Dick did a super job. My Berkeley Engineering Fund long-time chairman was Lou Oppenheim, and between the two of them, they did a wonderful job in helping the College of Engineering through some really difficult financial times.

Fundraising Help from Alumni in Asia

LaBerge: Tell me about the alumni and friends, how you contacted them. Did you travel around to different cities?

Pister: Yes, that's a good point. I'm glad you mentioned that. Up until the time I became dean, I had virtually no contact, no really official contact with alumni. Certainly I knew alumni. I taught students who became alumni, but I had never attended a meeting of the Engineering Alumni Society, which was founded back in the 1950s.

LaBerge: And you were a member of it too, weren't you?

Pister: I didn't join it. I could have but I didn't. I joined the California Alumni Association when I graduated. My mother gave me a lifetime membership in the California Alumni Association. Much to their chagrin now because it cost so little in those days. I think it was sixty-five dollars for a lifetime membership when I joined a half a century or more ago. But the point is, I had no formal contact with the alumni association or alumni.

That changed on a night in San Francisco. I think it was at the Engineers' Club in San Francisco in January when I gave my first engineering alumni association talk at the alumni association dinner in San Francisco at the Engineers' Club. I remember that talk very well because I think it went on for about forty-five minutes. I had written a real talk, and I didn't realize it was going to take so long. The people were very generous in their reception of the talk, and that was my introduction to alumni. Well, over the ten years, that association and interaction with that engineering alumni association really matured, and I saw the incredible importance of the alumni association.

I want to give credit back to the early days in the fifties when it was founded. It was a very important step because the cadre for our fundraising activities came from that alumni association. Their loyalty and support of the college, which started there, found itself manifest in the activities of the Berkeley Engineering Fund, the capital campaign and generally the support of the college. That's where it started. We had a southern California engineering alumni association chapter as well. I made annual visits to the Los Angeles area to meet with southern California alumni.

That led then to a series of trips during the last half of the eighties again associated with the capital campaign to meet with alumni, well in what used to be called the "paper tiger countries" of Asia. Let's see, where did it begin?

LaBerge: Korea?

Pister: I guess the first trip was in 1987 when I went to Korea. The first trip there actually to Korea was at the invitation of an institution called POSTECH, which was a new privately-supported institute of technology that was established in Pohang, Korea. It was essentially the Pohang Iron and Steel company in Korea, which was a huge company town with a steel mill and whole city where the employees lived, and that company was sufficiently robust and sufficiently important politically to establish its own university. It had its own school system, now it was establishing a university as well. It had a number of U.S.-educated, at least at the graduate level, Korean engineers including the president of the institute who had been a physicist at Lawrence Berkeley Lab. You can say probably just randomly and be correct, his name was Kim. Anyway, it was Dr. Kim and I can't think of one of his vice president's names who was a mechanical engineer that I had met through ONR.

They invited me to come and give the matriculation address for the first class because they were interested in connections to Berkeley. So Rita and I flew to Seoul. We stayed a night in Seoul in a beautiful new hotel there and were treated like royalty. Flew down to Pohang, which is in the south of Korea, and went to his new university, which was at that time absolutely a first-rate institution. It had wonderful facilities with computer facilities, classrooms, library and all, just state of the art, a wonderful place. I had the opportunity to give the address to the first class of students to enter that institution.

I made a return trip there the next year. They had at one point given us the opportunity to make a proposal for them to the Pohang Iron and Steel company to support some sort of a program at Berkeley. I went back again in 1988 to try to get them interested in this particular proposal. I remember taking back seven Golden Bear ties to try to "tie this thing down." [laughter] It turned out they gave money to MIT. The CEO of this steel firm was named General Park, meaning he was a general. He was no longer a general, but he was still a general. His son went to MIT. So they gave a chair to MIT. The other contender was Carnegie Mellon University and a colleague, Dr. Angel Jordan, who was there with me the first time negotiated with them. I think CMU got something out of it too. It turned out Berkeley ended up getting nothing, and in the long run probably it's just as well because there was a lot of intrusion on the part of the donor with the manipulation of the chair or the endowment that we would not have appreciated here. So my second trip was uneventful from that standpoint.

The other thing I would mention is that in this period, the last part of the 1980s in connection with the capital campaign, there was an effort that ended up going across the country. But the first step was to go to Japan, so that there was a whole contingent of us from the campus that went to Tokyo in November of 1987, over Thanksgiving I might add, to among other things see our football team play in the Coca-Cola Bowl. Let me just dwell on that for a second because it was hilarious. Here was Berkeley playing Washington State University in the Coca-Cola Bowl in Thanksgiving time in Japan before a crowd of people who in the 1980s knew very, very little about American football. So they didn't know when to clap or when to be happy or when to do anything. It was just a really very strange experience.

I also was there to visit a number of Japanese companies, which I did, and I had the really good fortune to have one of my mechanical engineering colleagues Professor Tomizuka, who was a graduate of Japanese University, but now on our faculty. He was on sabbatical in Tokyo at the time. So Tomi went with me wherever I went, and he was a wonderful

guide, of course, and person, to be sure, to help me with the culture and not to do anything inadvertently that might have been seen as a stupid mistake. Tomi was quite good. Whenever we went to these places, we always spoke English until the last two or three minutes, and then he and our Japanese hosts would break into a torrent of Japanese. So I don't know what was either done or undone by these conversations after we had finished our formal business. So that was an important event in 1987.

LaBerge: When you visited these companies, did you get some money?

Pister: These were basically companies that were supporting our computer science or electrical engineering programs. As much as anything, it was either to thank them for gifts that they'd already given or just to keep the doors open and to reinforce our commitment to work as colleagues in certain areas of research. We were not only fundraising for the building. We were looking for programmatic funds. The department that really pioneered this was electrical engineering and computer sciences. They established an entity called Microelectronics Associates, and later there was Computer Science Associates. To become an associate you had to make a gift of a certain number of hundred thousand dollars annually. That entitled you to have a visiting fellow to work with faculty and students here and just generally have an on-the-ground opportunity to see what was going on in research and teaching in that department. So it was to cement some of those relationships and just generally a reinforcement of relationships that were either developing or had developed already.

In the subsequent years, in the early spring or late winter of 1988, I visited Hong Kong for the first time. There I was received most graciously by the father of one of our graduate students in civil engineering, Dr. Fung, who was a surgeon in Hong Kong. He held a dinner in my honor and invited a number of engineering alumni and other alumni from Hong Kong, and I still remember Dr. Fung's graciousness on one day. He said, "Well, I'll just have my car and driver take you where you'd like to go." So we had the benefit of his graciousness to take us out to the border so we could look into mainland China from the border and generally just had a wonderful experience there with the people of Hong Kong. There was a very strong group of Berkeley alums in Hong Kong and particularly in engineering.

We then went back to Taiwan. I had been invited to Taiwan by the minister of education, and we arrived in Taiwan and were picked up in a long black limousine with flags on the bumpers and it turned out that we had a driver and an interpreter with us for the entire week in Taiwan. By the way, the minister of education at that time turned out to be a master's student that studied here at Berkeley with Jud King. So we had a really strong connection there.

LaBerge: Do you have his name?

Pister: You know, I can't remember it off the top of my head. We'd have to ask Jud King. But I do remember some of the events there that again were very heartwarming. We had an engineering alumni dinner that was hosted by the Taiwan Power Company. The chief was a Berkeley alum. We had a wonderful dinner, and they gave me a plaque and it was a tremendous sense of support for Berkeley and for engineering at Berkeley. I also visited the National Taiwan University, NTU, met the president of NTU. Many of our graduate students in engineering came from NTU over the years. I had at least three NTU

graduates as doctoral students. So that was a nice experience to see the place where they came from. I met with all of the deans of engineering in Taiwan at NTU. They brought the deans there to meet with me, a wonderful exchange there.

We then went to the south of Taiwan to Kaoshiung, which is the site of China Steel Corporation. The director of research, the vice president of China Steel was a Berkeley Ph.D. in materials science who was a student of Gareth Thomas. The president of what we would call a community college in the city Kaoshiung was also a Berkeley Ph.D. He was just a young man. Very up and coming in education and politics in Taiwan at that time, and he was very proud of his institution, being a young president. The end of that trip took us out to a beautiful place, a place to relax called Sun-Moon Lake, which is well known in Taiwan, in a hotel where there were no other Americans. It was all Chinese. The kind of thing you often see in Chinese paintings, the mountains with mist and water. It was just a perfect replica of that. We spent a night there, and we had the place almost to ourselves along with our driver who spoke no English whatsoever. So that was a very special experience.

We also visited an interesting village that was a recreation of the life of the indigenous peoples of Taiwan. It was particularly interesting to me because the indigenous peoples of Taiwan, their descendants that were in this place were much closer to Polynesian people than what you might see in China today. They looked more Polynesian than Chinese. So that was an interesting difference in ethnicity. That was a very interesting experience that simply reinforced the incredible support that we had in Taiwan and in all the countries of Asia because I'll go on and talk about subsequent events.

I think it's important here to recognize that this was just the beginning. Subsequently when Chang-Lin Tien became chancellor, he had, of course, every advantage of being able to go there and build on this and then with his own personality and his own background to really develop the support for Berkeley from that area that was present and able to be mobilized. While we're talking about these perhaps I should mention the last trip of this type that I took. In the fall of the year, in November I guess it was, we went to Singapore and--

More on Fundraising: Singapore and Australia

[24A]

Pister: Singapore again has a huge number of Berkeley alumni, and they were extremely gracious in honoring me and Rita. Our visit there was brief, but I became acquainted with a number of people. I had a chance to visit the National University of Singapore and was honored at a luncheon at the university by an emeritus professor of civil engineering, Sing Lip Lee. Sing Lip was a Berkeley Ph.D. from my department, and I in fact was the chairman of the committee before which he had to defend his dissertation. I've known Sing Lip, that would've been 1953, ever since. He has been a very successful engineer in Singapore. He was given one of its highest awards for work that he did in reclaiming land in the harbor of Singapore. He invented a technique for stabilizing land so that they could build the city out in the harbor of Singapore.

While there also, I had an opportunity, thanks to one of our alumni here in California in the Hewlett Packard organization, one of the vice presidents, Bill Craven. He arranged for me to visit a Hewlett Packard fabrication factory in Singapore. I did that and was really impressed at the quality of the work and the kind of people that were running that HP factory and came away with a real respect for the organization that they put together. Again, there were Berkeley people present in that tour as well.

We completed that visit in Sydney, Australia. We took a ship from Singapore down to Sydney, stopping at Bali for a brief period and Darwin and Brisbane. In Brisbane, we were able to visit a colleague that we had met in 1965 at Cork during our sabbatical. He had moved and become chairman of the mathematics department at the University of Queensland in Brisbane, Vincent Hart.

LaBerge: I remember you mentioning him.

Pister: Vincent and his wife greeted us there. Then we went from Brisbane down into the harbor of Sydney. Anyone who has seen Sydney is struck by its beauty, particularly when one comes in from the sea into the Sydney harbor as we did. I think it is one of the most beautiful entrances in the world. It has the beauty and grandeur of the entrance to the Golden Gate. It has a bridge. It has the opera house and just a magnificent vista. So it was quite an experience to come into the Sydney harbor on a ship. While in Sydney we had the pleasure to be hosted by our friends from our sabbatical in Germany in 1973, Dr. Hugo Messerle and his wife, Renate. We stayed with them and had an opportunity to see a bit of Sydney before going to the University of Sydney with Australian engineering alumni of Berkeley.

LaBerge: Now all these times, what do you talk about?

Pister: We talk about Berkeley.

LaBerge: They want to know what's happening.

Pister: They want to know what's happening, and they want to know about what's old professor X doing, and gee, I remember that class or, there's always almost universally expressed satisfaction with the experience they had at Berkeley among engineers that we visited. At Sydney, for example, the host was a professor of mechanical engineering by the name of Roger Tanner. I had Roger in a graduate course back in the 1950s here, and he went on, I think he did his Ph.D. at Brown University ultimately, but he was Australian. He went back to Australia, which is not always the case. But anyway that was, I think, the end of our travelogues for the Keeping the Promise Campaign. There's just another incident in connection with the campaign that I can't overlook and that's my meetings with Steve Wozniak, the Woz.

Student Steve Wozniak and Rocky Clark

LaBerge: He was an engineering student. Is that right?

Pister: Yes. I met Steve Wozniak first when he was still, not still, when he came back to Berkeley. Steve dropped out of the university to make a hundred million dollars in rough terms.

LaBerge: Right. Had he been in the engineering school?

Pister: He had been in engineering. Yes. He and Steve Jobs basically started Apple Computer by building one of the first, if not the first, PC in their backyard, so to speak. Steve had worked at Hewlett Packard. Hewlett Packard was not interested in his idea for a PC, and so he and Steve Jobs built one themselves and started Apple Computer. So I met Steve when he came back incognito. He was called Rocky Clark then. I remember having lunch with Steve at the Faculty Club and getting acquainted with him when he was still, he didn't have a lot of work to do, but he still had some to do. We started talking about the computer science building and wouldn't it be nice if he could make a gift. Well, we had, let's see, we had a subsequent meeting with Steve at the Faculty Club, and at that meeting Steve said, "Well, I can give you ten million dollars." Boy, I remember. Mike Heyman was somewhere in the club, and I got hold of Mike and told him this and Mike got a bottle of champagne and came in. We drank champagne to Steve's ten million-dollar gift. Then Steve went home, and his financial advisors said, "Steve, you're out of your mind. You can't give ten million dollars to anybody right now." So we didn't get Steve's ten million, but Steve agreed that he'd give us one million dollars. So that was great. We had a million dollars. One of the rooms in Soda Hall is named the Wozniak Room.

Anyway, at some point in my office still, I can't remember why he would've been there, Steve came in to pay me a visit, and I said, "Gee, Steve, we sure need that gift." So he whipped out his checkbook and wrote me a check for $333,333, that was a third, and just tore it out and handed me a $333,333 check. I never will forget that one.

Subsequently, Steve completed his bachelor's degree, and he was the commencement speaker at commencement when I presided as dean. I remember, he was nervous as the dickens before that speech. He was practically shaking. Steve is a very straightforward guy, no pretensions, just a down-to-earth person, and I really liked him. He had no airs about him. To finish his degree he had to give a public lecture to the college about design of the PC. He did that before a very unforgiving audience of computer science professionals and others, but I remember a number of the computer science faculty telling me, this fellow is a genius in design. He did things at a time that were remarkable in that he solved difficult problems in a kind of a tortuous way but the only way you could do it at that time. It just showed a tremendous genius for design.

LaBerge: For instance, did the professors know who he was?

Pister: Yes. By that time, although his diploma says Rocky Clark actually. His first wife's dog's name was Rocky. So he called himself on his diploma Rocky Clark, and he actually went to a Santa Clara County judge and had his name changed. I don't know--anyway the Woz. That's the Woz.

We met, after he left, he set up a company called Cloud Nine, and I remember Marily and I going down to see him at Cloud Nine, but I don't think Steve gave anything more in the way of major gifts. We did get the million dollars though.

LaBerge: Does that cover the gifts? There's so much else to talk about.

Pister: I think that covers the gifts that took place in that period.

Awards, Review Committees, Candidacies

LaBerge: Now as part of all this, did your wife need to come to a lot of dinners and do part of this with you?

Pister: Rita came to virtually all of the alumni functions, and during the period of my deanship we started an annual formal dinner for what we called the "dean's associates." These dinners were typically held at the Women's Faculty Club, and we invited the major donors to the college. They were always very pleasant affairs. We had some wonderful people that had the capacity and the desire to support the college in a substantial way. Rita and I always hosted those dinners. We did essentially all of our entertaining during my decanal years at the campus, either at the WFC or in the Bechtel Center. We had an annual Big Game Luncheon that we hosted, again inviting major donors and friends. We had this annual dean's associates dinner and then all of the engineering alumni dinners. So Rita took part in all those. We agreed right at the beginning to do this, I think I had one dinner in my home the very first year I was dean. We decided that just wasn't going to be the way we would do it. We wanted to separate our home life from my professional life.

On the other hand, the contrast to when I was chancellor is marked, because as a chancellor you have an official university residence. Naturally there, all of our entertainment, all of our social functions, were held in the University House, and we hosted them there even though University House has a public and a private part to it. We lived in the private part, and we did the entertaining in the public part.

Let's see there are, there are some things that I might go back and pick up now--

LaBerge: In the family things or--

Pister: Well, still some of the professional and some family things, too, in the eighties. I don't remember if I picked these up. One of the earliest honors that I received during this period that I certainly was pleased to receive was the engineering alumni honor award from the University of Illinois. Did I speak to this already?

LaBerge: We talked about some award--let me see. Was it the distinguished award ceremony? Yes, and you did return to your home in Illinois.

Pister: Okay. Yes, I did that one already. Then the other one that I should mention that took place in that eighties period was an award from the American Society for Engineering Education. I received that award in Portland at their annual meeting in June, in 1988. It was the Bendix award given for a major contribution to the education of underrepresented students in engineering, for minority students in engineering. This was given in 1988 to recognize that I had doubled the number of women in engineering during my term and

had made substantial increases in the percentages of ethnically underrepresented students. I was really pleased to receive that award as well.

Some of the other things in looking back over this period. I had the opportunity to serve on two really interesting review committees that were appointed by President Gardner. One was to review the director of the Lawrence Livermore National Laboratory, and then the second one was to review the director of the Lawrence Berkeley Lab.

LaBerge: Similar to your dean's review?

Pister: Yes. These were five-year reviews, right. I think apart from the interest in what was going on at these laboratories and how the directors had dealt with the issues of the time, the other thing I enjoyed was the opportunity to meet people that were brought in from outside the university to conduct these reviews. There are several people that I should mention. Harold Agnew, who had been a former director of the Los Alamos Scientific Laboratory, I met for the first time. Bob Wertheim, Bob had been a senior officer in Lockheed, retired navy admiral, that I've kept in touch with through the national academy.

The other person that I remember, because I've had a number of occasions to work with him in other capacities since then, is Norman Hackerman. Norman is a distinguished chemist first of all, and he served as president both of Rice University and the University of Texas at Austin, and he was, I think, chairman of at least one and perhaps both of these review committees. But I worked with Norm subsequently in his role advising the governor of Texas on a special research program that the state of Texas has for encouraging the support of innovative research for technological development. That program is reviewed every so often, and basically at Norm's suggestion I was made a member of that review committee a few years ago, and so I had a chance to connect with Norm again. I also worked with him in the national academy complex on education issues.

One of the things that I really admire about Norm is his absolute candor and straightforwardness on issues that are important, typically one that I'm thinking of right now. He said this in connection with the problem of recognizing and properly rewarding good teaching as opposed to good research. Norm somewhere made a statement that I've never forgotten. He said that a great teacher is only known to the borders of his or her campus; whereas a mediocre researcher is known the world over. That just says so much to me that is important in the academic world, and that's just the kind of a person that Norm is. He is both an excellent teacher and an excellent researcher. So it makes it even more important to hear that.

The other thing that I'm amazed at when I go back and look at that period is that it shows there are cycles in a person's lifetime. This cycle happened to me in the years '85 to 1990 essentially. I guess as dean of engineering, I was sufficiently visible in the country that every search committee in the world decided that I should be added to the list of candidates, and if I go down--

LaBerge: Go down the list.

Pister: And look. It's really--because I'd forgotten most of these. Starting back in the early eighties, vice chancellor at UC Santa Barbara--

LaBerge: And tell me if any of these appealed to you.

Pister: I will when they happen.

LaBerge: [laughing] That one I guess did not.

Pister: No. I think I mentioned the executive vice chancellor at UC Davis. I may have mentioned that. That one really, I had thought long and hard about because I like Chancellor Meyer, and Davis is a very complex and interesting campus because of its tremendously diverse academic programs. Then president of UT Austin--

LaBerge: Now was that before Norman Hackermann?

Pister: Let's see. That was not before Norm Hackermann.

LaBerge: And before our very own Chancellor Berdahl.

Pister: Yes. I was interested there, but I didn't make the short list. Chancellor of the Texas A and M system. There are two systems in Texas, UT system and the A and M system. Presidency of Georgia Tech. That would've been an interesting one, but I just felt, I just accepted the second five years of being dean here, and I didn't think I should be interested in that. This one I'd forgotten about completely. Academic vice chancellor at UC Santa Cruz.

LaBerge: I guess you turned that right down.

Pister: That was 1988. I didn't think about that one at all. Senior vice president-provost University of Minnesota. President of Illinois Institute of Technology.

LaBerge: Oh no. That's not your--

Pister: Vice chancellor academic affairs at UC San Diego. President of Ohio State. President of Iowa State.

LaBerge: Did you go back to any of these places for interviews?

Pister: I didn't. I wrote a polite "not interested" letter to all of these. The only ones I responded to were Davis and UT Austin. I didn't follow up on any of the others. Looking back, I think, I made the right decisions all the way along, but it's interesting. All this happened and it didn't come before then and it didn't come after then. It was just a certain period in one's career I think that something like that would happen, and that was the end of that.

LaBerge: In those things, who do you ask for advice?

Pister: I think in those cases at that point, I don't think I talked to anybody really. I talked to my wife about it clearly. I talked usually with John Whinnery to get his advice because I valued his perspective on things very much. I was pleased that someone asked, thought

about me, but didn't take it any further. I left out the presidency of Harvey Mudd and the presidency of Oklahoma State as well. Harvey Mudd would have been interesting. I know the person that ultimately took that position. He's a friend, was a vice president of Stanford, wonderful guy, and he had that job. He's out of it now, in a different position.

LaBerge: What's his name?

Pister: Hank Riggs.

LaBerge: Family things, do you want to talk about?

Pister: There are a couple of other things here I ought to pick up.

LaBerge: Oh, the College of Engineering faculty retreat in Napa. Is that worth some discussion?

Pister: That really connects back with the five-year review. It's the beginning of the second five years. We planned along with, of course, a college faculty committee, to have a two-day retreat I believe it was, and we sited it in Napa at the Embassy Suites, which had just opened up in Napa at that time. It was an opportunity to bring together faculty away from the campus, to talk about issues that were confronting the faculty, to talk about the capital campaign and to generally try to build some new relationships among faculty across the disciplines. To be perfectly honest, I can't remember specific outcomes but it was an important step I believe, It was something that the provost funded for us, I believe, to encourage this kind of introspection and reflection.

LaBerge: So would it be something, did you have an outside person direct it?

Pister: No, we did it ourselves. [background noise] These things, we've had every so often, in our college at least, we've held these things. I remember way back under Dean Maslach, we had a retreat up at Lake Tahoe, a several day retreat. We've had one-day retreats from time to time. There was a retreat at Asilomar. I think it's a good plan. I think other units on the campus do the same thing. We're not the only one that carries this kind of thing out.

LaBerge: How about John Whinnery's retirement?

Pister: Yes. I notice I have that listed in 1986. To be perfectly honest I can't remember anything about that now, and I don't really know why I put that in except that it was--

LaBerge: He was important to you.

Pister: He was an important person in my life certainly, and I'm confident I went there to pay respect to him. In terms of other things that were going on in my life I think maybe I could turn to some of those things now too because after all, one doesn't live entirely in one's profession.

Family Matters

Mary Olsen

Pister: There were certain things of great importance to us as a family that happened in this same period. Perhaps, I could begin by saying that in 1984 my mother-in-law Mary Olsen who had been living by herself in Lafayette--she had already attained the age of ninety-four at that point. She came to need more care than she could get by living by herself. So she moved in with us and for the part of 1984 up until February of 1985, she was with us. My wife, to her great credit, basically devoted herself to the care of her mother, and her mother died peacefully in our home. That was, of course, a difficult experience for all of us to go through, but in looking back again, I guess I have to say it showed a tremendous amount of commitment and love on the part of my wife to do that.

LaBerge: Not many people do that.

Pister: No. That's right. Her mother required a lot of care at the time, and she was gracious enough and loving enough to give it. One only hopes--

LaBerge: That your own children.

Pister: Get something like that. But God knows.

LaBerge: By this time you didn't have children at home probably.

Pister: No, we didn't. She was the only one. The other thing that I note in that same period that I cannot overlook in May of 1986, I note our son Kris brought his girlfriend home for the first time.

Kris and Jennifer

[24B]

Pister: Yes, in May. Kris, I still can see them walking in through our patio into our backdoor. Jennifer is a very petite young lady, and she walked into the house, and I fell in love with her as quickly as Kris did. She has heard this story before. I remember the only thing that I had to get used to was the fact that she had two earrings in one ear. In 1986--[laughter]

LaBerge: That was pretty avant garde.

Pister: That was, at least it was to me. I thought that was pretty far out that she had two earrings in one ear. Thank God there were no other body piercings at least. It's funny now.

LaBerge: It's good to have this on record too because it's an historical thing.

Pister: It is. It doesn't stop there. I'll have to complete the story because there won't be any other appropriate place to put this in. Kris and Jennifer were married in Tulare in 1988, I guess it was.

LaBerge: Yes. That's what you have on this list.

Pister: We went to their wedding of course, the whole family, but the night before we had a dinner in Visalia with both families present. Jennifer's last name is Sa, which is a typical Portuguese name. She's a second generation Portuguese American girl from a very robust community in Tulare, which originally had a lot of people in the dairy industry, which seemed to reflect that culture. So here we are at this dinner. I remember getting up as the father of the groom to make some remarks and saying that I fell in love with Jennifer when she walked into the house, but I had to get used to the fact that she had two earrings in one ear. What I didn't know is that her mother sitting there also had two earrings in one ear. [laughing] I hadn't noticed that Evelyn Sa had two earrings in one ear. Oh boy.

I talked previously about the spider web of life. When I was chancellor, I met the new vice president for DANR, division of agriculture and natural resources, Reg Gomes. Reg comes from the Central Valley also. He went to Cal Poly before he went on and got his Ph.D., and he came to us from Illinois. Well, it turns out that Reg is a cousin of my daughter-in-law's mother. She was a Gomes.

LaBerge: Isn't that amazing? This is Evelyn with the two earrings.

Pister: Evelyn and Reg are connected. I'm very fond of Reg, I should say, and he's a wonderful guy to work with now. It's funny how these circles close.

LaBerge: We had a couple of other weddings in here, and how about Kris and Jennifer's commencement? Is that something to talk about?

Pister: Oh, yes. That was, see that happened in 1986. We went down to the commencement in June. They were up here in May. We went down to the commencement in June, and Kris got his degree in applied physics, and Jennifer in computer engineering. I think I may have mentioned already that Kris and Jennifer met in a class in artificial intelligence although Kris says he saw her coming across a field of flowers.

Just as a footnote to this section. In August of 1986, Rita and I took a wonderful cruise from San Francisco up to Victoria and through the inland passage up to Alaska and to Glacier Bay and took that wonderful cruise, which was, I guess, the second of our now eight cruises that we've taken that we have really learned to enjoy.

Richard and Jacinta

Pister: Another really interesting thing was largely a professional trip, but it was a combination. This happened in 1987 with the American Society for Engineering Education deans. I was a member of the board of directors of this group at this point, I believe. Their annual meeting was located on Oahu in Honolulu. Originally, I had signed up for that meeting

with the expectation that Rita would go with me to Oahu, but it turned out that the date for the meeting was too close to our daughter Jacinta's upcoming wedding. The meeting was in March, and the wedding was in April. Rita said, "I can't go now. Jacinta's getting married next month." She didn't go. So at the last minute I said, "Kris, why don't you come with me?" Kris was a grad student here in electrical engineering at that time. So Kris and I flew to Hawaii, to Honolulu. We had a great room in a hotel during the heyday of Japan's dominance of the world's economy, and most of the hotel was Japanese, the signs and prices and people. But it was a wonderful room. We looked out over Diamond Head, and everything was great. I went to the technical sessions, [laughing] and Kris was all signed up for the spouses' programs. So Kris went on these different tours with all the women and had a great time. [laughter]

LaBerge: The women probably liked it too.

Pister: Yes. Sure. I remember he did go to at least one technical session, or he went to the social events of course. The engineering deans there--when I introduced him and said he was doing his Ph.D. at Berkeley in electrical engineering--almost all of them said I'll hire you on the spot. They were looking for faculty at E. E. So he made a lot of friends there that he really didn't need. That was a really interesting experience to be able to share that.

In fact in April, Jacinta and Richard did have their wedding at our parish church, and we had the reception at our home and had a wonderful time. Since both of them had gone to Stanford and then to the Harvard Business School, they had two sets of yuppie alumni friends that came, and between the Stanfordites and the Harvard people there, it was kind of an insufferable situation. [laughter] They were quite a group. That began a period for them of flying back and forth across the country to attend weddings of their classmates. They thought nothing of hopping on an airplane to go across the country to one of their classmates' weddings, which speaks well for the kind of bonding and the friendship, the level of friendships that were created in those graduate student days. I must say I felt somewhat the same for my graduate experience at Illinois except that we didn't have the resources to do it in those days.

Let me see. Ah yes. In this same period I was appointed to an advisory committee for the Department of Mechanical and Electronic Engineering at Los Alamos. In the summer of 1988, I went for the first time to spend--golly it was I think, almost a week--as a member of an advisory group to sit in with the program leaders and the division leaders to review their programs, and then to be a member of the advisory group that would write a report to the director as to the strengths and weaknesses of the program. We did that all day, and then in the evenings typically we had a chance to really get acquainted with Santa Fe. I think I was a member of that committee for four or five years. It overlapped into the time I was chancellor, and I finally had to give it up because of the complexity of my schedule as chancellor. But at any rate, we, Rita and I, would stay in Santa Fe and would drive out each day, that is the members of the party would drive out from Santa Fe to Los Alamos. But we really fell in love with Santa Fe, which is a marvelous multicultural center with lovely shops and places to visit. We've gone back a number of times because of that.

Also, that year we had the opportunity to travel--this was strictly now non-university related on a pleasure trip to Italy, and we spent two weeks in Umbria in Perugia and Assisi, revisiting Assisi for the third time, I guess. Rita and I had been there, she had been there in the forties, and then we were there in the sixties, and this time we were back

again. We were able to combine that visit with a visit to two Italian colleagues, the two that came to our fiftieth anniversary party in the year 2000 at the Claremont from Italy, the Ciampis from Rome and the Vitiellos from Milan. We had a visit with them there, and we went with the Vitiellos on a beautiful weekend trip back up to Lake Como and stayed in Stresa where Rita and I had first visited Italy in 1960. So it was a really wonderful experience to go back there again.

Commencement for Kris, 1989

LaBerge: How about Kris' commencement?

Pister: Yes, I just saw that. The May engineering commencement in 1989 was a special pleasure for me because it was the custom in engineering for the dean and one of the associate deans to hand out, not diplomas, but surrogate commemorative scrolls for the commencement. So each bachelor's, master's and doctoral student that received a degree in that commencement would come up. Their names were called. They'd get the scroll, and I would shake hands. When you shake hands with seven or eight hundred people in an afternoon or morning, I'll tell you, you begin to notice it. You have to know the only way to do this and survive is to go in deep and don't let people grab your hand or else you'll then have a very sore hand. Anyway, Kris came up in 1989 to receive his master's degree in electrical engineering. So we have a great picture of Kris who came up, and we exchanged high fives on the stage. That was a very proud moment that was repeated later on when Kris received his Ph.D., and I was chancellor at the time, and I came and participated in the ceremony of awarding him his doctoral hood at the same--.

LaBerge: Did you give him the hood?

Pister: I shared the giving with his dissertation supervisor, Ron Fearing. We each put it on. Then what else is in 1989?

LaBerge: Lomo Prieta earthquake.

Pister: Ah, yes.

LaBerge: Which you're an expert on.

Pister: October 17, 1989, I remember I was walking in the walkway, the glassed-in walkway between McLaughlin Hall and O'Brien. All of a sudden things shook, and there were all kinds of noise and that was that. I said, well obviously, we had an earthquake. There was nothing, subsequently we saw there were some plaster cracks and things in McLaughlin, but nothing really seriously damaged. I went home that night. I drove home on Grizzly Peak Boulevard over the hill that way and down to Lafayette through Orinda. I remember looking out and seeing fires, and there'd been, of course, fires I think over in East Bay in a garage and then certainly fires over in the Marina in San Francisco. I had no idea though of the severity of the quake. Rita had been driving at the time that it happened between Walnut Creek and Lafayette, and she didn't even know anything had happened.

UCB College of Engineering Commencement, 1992: Chancellor Pister assists in hooding Dr. Kris Pister

LaBerge: Sometimes when you're in your car you don't feel it.

Pister: Of course, it wasn't until later on that evening when we began to get a sense of what had happened, and the terrible tragedy in Oakland on the overpass, on the freeway. So that began of course a whole series of inquiries. My colleagues in civil engineering and structural engineering particularly were very active in making assessments later on of the viaduct that collapsed, and doing some full-scale tests of that kind of construction down in Oakland before the whole thing was torn down to be replaced. But it was a very tragic time. The only good thing that comes out of events like this is temporary recommitment to support research to understand better the complex phenomenon of a strong motion earthquake. Every time there's an event, there's a temporary public and political interest in increasing the level of support to learn more about the very complex forces and necessary designs that you need to balance these forces. Well, that takes us pretty much to 1990, maybe we can call a halt for today.

Sabbatical, Fall 1980, as Dean Designate

[Interview 13: March 5, 2002] ## [25A]

LaBerge: We were last time talking about the deanship, the eighties, 1980 to 1990, but we want to pick up on some of the early years and possibly Fall of 1980 before you took on the deanship.

Pister: Right, as I had indicated previously, I asked for a transition period between the first of July 1980 until January, during which time I was called dean designate for engineering, a transition period where you have a sabbatical, really in one sense to clean up some things that had to be done before really devoting full time to administration and also to do some preparation for the deanship. One of the things that I did was to arrange a trip back East to a number of places that I felt would be helpful to give me a perspective on my role as a dean. The first place that I went to was MIT, and I remember the awkwardness of this, and in retrospect it shows the immaturity of a faculty member become administrator. I wanted an opportunity to talk to someone at MIT about how they were organized to do development work because I knew MIT had been in the fundraising business for a long time. But I didn't really know how to go about this.

So I made a call to the dean's office and talked to some staff person there, explaining who I was and what I wanted to do and all and set up a meeting with the dean at the time, who was Bob Seamans, a very highly respected engineer. In fact, Bob at one point was secretary of the air force. In retrospect, I should have turned to the staff of the dean's office here and said, "Please set up this trip for me." But I didn't make that mistake again. It just shows the typical faculty inexperience or immaturity in how to behave as an administrator.

That trip was very useful. I'd never been to MIT before. It was good to get a feel for the place and to speak with someone. I also spoke to one of the associate deans who had the principal responsibility for fundraising there to learn how they were organized, their industrial associates program, how the faculty participated in that. I remember taking

away I think a very important piece of advice from this person that I talked to, whose name I can't remember, who said, "You know, the most important thing is to concentrate on the few people who are able to give you a substantial amount of resources and not to spend a lot of time setting up an elaborate system that might identify everybody, but not necessarily produce a lot of gifts for the college or school." So that was a piece of advice that I hope I followed back here at Berkeley.

The other thing I did was through an alum of our College of Engineering; again I regret I can't remember his name. He was a longtime General Electric employee, and I paid a visit to General Electric in Schenectady, their research organization. I went over to Rensselaer--to RPI [Rensselaer Polytechnic Institute] and met the dean and a number of faculty members at RPI. The reason for going to RPI was at that time they had a very fine, and I would say ahead of the curve, facility for use of computers in their academic programs. It was much ahead of what we had here at Berkeley. They had some very good people there. I remember I was amused that the chapel that had been dedicated, I think, by the Rockefeller family and supported by the Rockefeller family had been turned into a computer laboratory.

I then went on to Cornell University. The dean there was Tom Everhart. Tom was a long-time colleague of mine here at Berkeley, a professor of electrical engineering, and he later went on to become chancellor of University of Illinois at Urbana and from there became president of Caltech. So he was a person that I had a lot of respect for and had already made a mark at Cornell. So I wanted to go and see what he was doing in the way of engineering education. That was an important visit as well.

LaBerge: Did you also ask him about development or--?

Pister: I don't think I talked so much about development with Tom. I was interested in what they were doing in the use of computers in their instructional programs and just generally how they were organized to carry out their mission.

LaBerge: Is there someone who advised you to do this, like to take these kinds of trips?

Pister: No.

LaBerge: You just thought of it on your own.

Pister: Basically, I just felt this was an important thing for me to do, to try to get as much advice and experience as I could before I actually had the responsibility for the college. It certainly was a well-placed trip. Before I complete the technical part of this trip, I should mention a side trip that I took. Of course, my wife was accompanying me on this trip. We drove up to New Hampshire past Hanover where Dartmouth is located on the Connecticut River to a very small town, Orford, New Hampshire. I knew of Orford, New Hampshire, principally through my mother's tutelage because that was the birthplace of my great-great-grandmother Mary Kimball Rhodes, who had been the first owner of the property in Stockton where I was born.

LaBerge: Windsor Farm.

Pister: Windsor Farm, yes. We knew all about Grandma Rhodes and her origins in Orford, New Hampshire, and my mother had corresponded with a lady and her husband who lived in Orford and who were very interested in the Orford Historical Society and who knew the whole town. So we had contacted them, and she graciously had us for lunch that day. They lived in a house that must've been an eighteenth century or maybe earlier house. She knew exactly where the place was, where the Kimball place was. Orford's like a one-street town, and was just across the street from her place. She was kind enough to take us there. The ground sloped down to the Connecticut River, and it was a lovely setting. So it was quite an interesting experience. Of course, we went to the small cemetery there in Orford and found the headstones for her parents and the Kimballs, and I am happy to say we have portraits of her parents in our entry hall in our home in Lafayette that came down to us through my mother. So that was a very interesting historical opportunity for us to be included in the trip.

Election to the National Academy of Engineering, 1980

Pister: The trip ended on a professional note. I attended my first meeting of the National Academy of Engineering in October of 1980, at which time I was inducted into the National Academy. That was of course a moment of great personal satisfaction to be introduced as professor of civil engineering and soon to be dean of engineering.

LaBerge: How does one get into the National Academy? Are you elected?

Pister: Yes, the academy has about 1,500 members at the present time, and members are elected by peer election. People are nominated. One has to have a nominator who presents a case along with three or four references, and that case goes to, depending on your field, to what are called, peer committees in the academy. There's a peer committee for each of the major engineering disciplines for example. That peer committee screens the nominations and rank orders them and submits them then to a membership committee of the academy, and the membership committee makes the final decision as to which of the nominees will be placed on the ballot. Then there's a ballot that goes out to the whole membership, and in order to be elected, you have to have a majority of the members who vote in the election, to be elected. I guess the best way to express my feelings about this is-- The people that are elected to the academy are by and large all very deserving, but there are also many deserving people who are not members of the academy. I think this is generally a characteristic of all academies in this country, and in the world for that matter. It's very hard to devise a scheme that identifies and then acknowledges the contributions of every deserving person in a particular area. Anyway, it was a very pleasant experience.

Fundraiser Trips with Chancellor Heyman

Pister: I guess the other thing I would like to mention in the way of trips are those taken for quite a different purpose. In the last half the 1980s during the capital campaign years, the Keeping the Promise Campaign, the chancellor organized several trips across the country.

I remember particularly going to Boston, to New York City, to Chicago and to Minneapolis, on trips with the chancellor. Typically, there would be the deans of business and engineering and dean of letters and science and vice chancellors that would be there, and typically the Berkeley Foundation would be represented. We would basically go and have a dinner bringing in Berkeley alumni from the area and often have an event connected with it. For example, I remember going to Boston. We had an event in connection with the football game between Cal and Boston University. That was a particularly interesting one because it was an opportunity to meet Dave and Shirley Saxon. Dave and Shirley were back there because at that time Dave had left the university and was chair of the MIT Corporation. So it was wonderful to get a chance to say hello to Dave again and see him even though Cal lost the game. I still remember that. That's a fairly safe remark to make in almost any time. [laughter]

Another one of those, I don't remember the details of the New York meetings. As I remember in New York City, we had our meetings at the Princeton Club, which was an interesting choice, but for whatever reason. I don't know. I think possibly we had them at the Princeton Club because Mike as a former as a Yale graduate had--

LaBerge: Reciprocity.

Pister: Reciprocal privileges with the Princeton Club in New York City and so, because I remember staying at the Princeton Club on another occasion when it wasn't one of these alumni events, but we simply stayed there and made arrangements through the chancellor's office.

I've kind of lost touch with what happened in Chicago. But I certainly remember the trip to Minnesota, to Minneapolis. We had a wonderful meeting there. Again, it was combined with a football game. So it would have been the fall of 1988. We played the University of Minnesota in the Silverdome there. I had never gone to a football game in a domed structure before. I remember the absolutely incredible noise level from that experience. It was just unbelievably loud, and we were very close to the field and it gave you a very eerie feeling to the game.

Perhaps a more significant thing than the fact that Cal lost again that game, was that we had a dinner party afterwards. I remember getting up over and over again during the dinner to go out to a telephone to call home to find out whether or not my oldest daughter had delivered our first grandchild or not. It turned out she hadn't, all during that evening. She had a very long labor, and our first granddaughter, Sarena, was born, I think, much later that night or the next morning.

LaBerge: This is Tracy?

Pister: This is our daughter Tracy who lives in Windsor Farm, in fact. Her daughter Sarena was born right after that game.

LaBerge: Typically, when you'd have a dinner with alumni, how successful was it fundraising-wise?

Pister: I can't remember how to measure that. It wasn't that the dinner itself was, to put it crudely, to shake down people at the dinner. It was more an opportunity for cultivation, in

the technical language of the fundraisers. There's cultivation, stewardship and solicitation. It was not solicitation certainly, and there might have been a bit of stewardship in that we were thanking people who had given, but largely these were cultivation events. Recognize again that the 1980s were really years that marked the infancy and the development of Berkeley's fundraising programs. Up until then there had been sporadic attempts to raise money, but nothing organized at the level that we did then or has been achieved subsequent to that period.

More on Review Committees

Pister: There were a couple of other things during those decanal years that I should mention. I had several opportunities besides the visits that I initiated myself and the meetings with other engineering deans that I've called attention to, the American Society of Engineering Education deans' meetings. In 1984, I was asked to chair a review committee for the Department of Civil Engineering at Stanford. I had a very distinguished group of people join me there to review the academic programs of the department and to make recommendations to the department chairman. That was a very interesting experience. Of course, I had worked with the dean of engineering that I've mentioned already, Bill Keyes, in the past, and was acquainted with him, and then his successor, Jim Gibbons, and I worked closely together on the salary issues of engineering faculty with Jim. We exchanged information, and he particularly was very pleased to get our salary information to help with salary decisions in the Stanford system. Of course, the University of California pegs faculty salaries on our comparison eight, but it was useful for him in particular instances to know something about our salaries.

So that was just an intensification of a relationship that I built up over the years when I was dean and was pleased to be able to do even more in depth when Jim Gibbons invited me to come to speak to a meeting of his school of engineering faculty to talk about engineering at Berkeley. I remember I did some research at that point on the characteristics of the faculty. I found that in our two academic units, the school at Stanford and the college at Berkeley, that we drew our faculty from virtually the same institutions. Eighty percent of the faculty in each case came from the same ten institutions. At Stanford and Berkeley the majority of faculty came from either Berkeley or Stanford for their Ph.D.s. So it was a really interesting--

LaBerge: What were the other schools?

Pister: Oh, I won't be able to remember now. Caltech, Princeton, Columbia, Cornell, Illinois, Michigan, Wisconsin, those are the ones that come to mind right away. They are the ones that traditionally have had strong programs in engineering.

LaBerge: When you're asked to be on a review committee like that, for instance, what if you are asked by five groups to do that? How do you choose and how do you decide, yes, I can spend my time on that? Is it pro bono?

Pister: It's all pro bono. All of these things are.

LaBerge: Courtesy, sort of.

Pister: It's kind of an academic courtesy, I think. It's very much in the same spirit as serving as a reviewer for an archival journal or referee or reviewer or serving on an accreditation team for an institution. It's part of the academic culture in this country that you're expected to do this, and by and large most people do. Clearly, certain people can find themselves really oversubscribed for this kind of thing. So you do have to make decisions about how much time you have available, and I've had to turn down a lot of invitations that I simply didn't feel I had the time to do, given the other responsibilities that I have. But ordinarily I would accept these invitations.

For example, since we're talking about this, there are a couple of others like this that I'd like to call attention to. I also served for a couple of years on the visiting committee for the Division of Engineering and Applied Science at Caltech. This was at a time when the chairman of the division of engineering, which is like the dean of the college, was a civil engineering colleague of mine, Paul Jennings. At this time already Tom Everhart had moved out to Caltech. So he was president at the time and Paul was a colleague of mine in engineering. I served on that visiting committee for a couple of years. Apart from getting a kind of perspective on what's happening at Caltech, that kind of visit, just like Stanford, gives you the opportunity to reflect on your own institution, to make comparisons, of what the faculty are doing, what the problems are, what the successes are. The other thing is you get to meet some really fine people.

At Caltech, I'll never forget this. I stayed overnight in the Athenaeum which brought back memories of the time that I went down there on my first sabbatical with Max Williams whom I've spoken of earlier. So I was back in the Athenaeum and coming down for breakfast, and this gentleman came up and sat down. I don't remember. I don't think he introduced himself. He might have introduced himself. It turned out he started talking about everything under the sun, and had the most incredible understanding of everything. He talked about playing the violin and being at Caltech in the 1920s. It was Sy Ramo. Sy Ramo was one of the founders of the company that became TRW. It was Thompson, Ramo, Woolridge originally, and that association led to a friendship with Sy.

I saw him subsequently at academy meetings when I was chancellor at Santa Cruz. I went down to Los Angeles and had breakfast with Sy one morning. He was, I think, close to ninety then and still driving a big Cadillac, just a marvelous fellow. I was really pleased to get from him a copy of his book *The Business of Science*, and I read the book and I've used some material from his book, particularly comments from his introduction, in many speeches that I've given. He has such a marvelous insight into the technical world and how the technical world interfaces with the political world. He gave a wonderful talk once at the National Academy meeting on engineering as a social enterprise, and that theme has been one that has really attracted my interest over the years.

While we're talking about this I might mention another set of experiences. I also was asked to join a committee that was headed by a person on my advisory board, a former IBM vice president, Art Anderson. Art had retired from IBM, and he was a wonderful friend of the College of Engineering, by the way, at Berkeley. He'd moved to Incline Village, Nevada, so the University of Nevada immediately glommed onto him in some way. [laughter] He chaired a committee and asked me to serve on it to advise the University of Nevada system, which consisted of Reno and Las Vegas, on how to do a

better job of bringing in National Science Foundation projects. There's a program in the National Science Foundation that's designed to assist states of the nation that have a less than good track record in getting NSF grants. The program is called EPSCOR. I can't possibly tell you what that means. But we met for a day or two. We reviewed a set of proposals that had come from the campuses in Nevada and ranked them and made recommendations as to how the University of Nevada system could improve its success rate in getting NSF proposals. That's another kind of experience that I had during those years.

National Research Council, Board on Engineering Education

Pister: Another really interesting one, that actually led to a substantial commitment of my time that extended over into the time I was chancellor, was to serve on a National Research Council panel that was called together to consider whether or not it would be useful to establish a permanent or standing committee in the National Research Council that would be devoted to engineering education. I participated in this panel, and we recommended to the National Research Council that, yes, we thought it would be a useful thing to establish such a permanent or standing committee within the National Research Council. We went to Washington, filed our report, and went home.

Well, much to my surprise, a year or so later I got a call saying, we'd like you to be the founding chairman of this, what became known as the Board on Engineering Education of the National Research Council. That led to a very interesting set of associations over about the next five or six years for me, I can't remember exactly how long. It must have been six years. I think there were two three-year appointments that I had as chairman. The ultimate product of that board was a National Research Council report that we proposed which basically talked about the engineering profession--what we felt was needed to produce properly educated engineers for this next century and what some of the strengths were, what some of the problems were. Reports like that typically may be important, but they probably are not as important as the process that you go through that leads up to the reports. I think it might be useful to say something about that.

[25B]

LaBerge: Would you like to start with who else was on the panel and how they're chosen or--

Pister: I would have to get a copy of the report to--

LaBerge: We'll come back, or you can add it.

Pister: It was a really splendid group of people. It included a number of people that I knew, that I recommended, people that were recommended by others. I have to say at the beginning, the composition of a National Research Council committee is pretty well structured by the culture and by the policies of the National Research Council. There has to be geographic diversity. There has to be gender diversity. There has to be ethnic diversity. Well, at least these are objectives. There has to be a proper balance among the disciplines so that, and I think at that time even there was a question of well, we don't want it all to

be old people. We want an age distribution. So it was a very challenging thing to get the kind of balance that would be accepted by, I can't remember which group in the National Research Council might have had the final authority as to composition. I remember creating a matrix of people's names, what their characteristics were, and going over all this and making a number of submissions before we finally converged on the composition of the committee.

Chuck Vest, now the president of MIT, was a member of the committee. He was already the president of MIT when he joined the committee. Later on in her career secretary of the air force, Sheila Widnall from MIT, was a member of the committee. Samuel Florman, that I've talked about already, and so on. We can go back because it might be interesting to look at some of those people and what they're doing now compared to what they were doing. I'm thinking particularly of a young woman who was an assistant professor at Wisconsin, that was a member of the committee and a wonderful participant, very frank and direct in her criticisms of engineering education. She's now the dean of engineering at the University of Washington and been one of my mentees over the years, as a matter of fact. Okay, so that committee was a very important experience and took a lot of time.

The other thing I'd like to mention was I had wonderful staff support from the National Research Council in the person of Kirsten Pollack. Kirsten is Swedish, and she was an experienced staff member in the National Academy complex, really knew her way around, and she did a wonderful job of supporting this committee, really can't say enough about the help she gave me in making this whole thing work.

NRC Report

LaBerge: Well, you were going to talk about the process, but I got you off on another tangent, the process of coming up with your report.

Pister: Oh yes, yes. I should preface this by saying that I think there was a certain amount of unease at the beginning when certain groups in Washington or in New York learned that I was to be chairman of this board, because evidently maybe at some of the engineering deans' meetings, the national engineering deans' meetings, I had appeared to be somewhat outspoken on certain issues [laughter] that must have, to use an antiquated expression, caused "offense to pious ears" in the field of engineering education. I expect it had to do with accreditation. I really had some serious reservations about accreditation and other matters. I don't know what they might have been. But so at the beginning--

LaBerge: You knew this. You knew there was unease--

Pister: Yes, I did. I can't remember how that was brought to my attention, but it was done in a gracious way, not an offensive way. So from the beginning I determined this is going to be, to use an overworked term, an inclusive operation.

LaBerge: Where did you meet?

Pister: We met in Washington at the beginning. What I did was to convene the committee meetings and devote a significant part of the meetings to what I'd call hearings on issues in engineering education. To these meetings I sent invitations to all of the engineering societies, so that the education vice presidents or the designees of the presidents were invited to come. I sent invitations to the, like the Hispanic engineers, to NACME, to places like that that had an interest in engineering education for minority students. We had government people, that is from the mission agencies of the federal government that were interested in engineering education. All of these folks were invited to come, to listen and to make presentations from time to time on areas of interest to this committee. So from the beginning I tried to develop a grassroots input and support for the work of the committee.

We had industry people come as well. I still remember a meeting in Washington attended by Mary Goode, who's now an academic administrator at the University of Arkansas; she's a vice president or a dean now. But Mary was a senior executive when she was vice president of Allied Signal, which is a major U.S. corporation, and at one point she was assistant secretary of the Department of Commerce. Mary is a member of National Academy, very well-known engineer in this country. She came and she and some of her colleagues were very critical of certain aspects of engineering education. I still can hear Mary talking about it at that meeting.

Well, we gathered all this in, and then the committee took it upon itself to start to draft a report. But we did this again in a way that I think emphasized that the process was just as important as the final product because what we did--. And this is responsive to the Byzantine complexity of the National Research Council. You can't publish anything without invoking an enormously complex peer review system. So that all sorts of things are balanced out before you publish anything.

We produced what was called a working paper. This was not a real publication in spite of the fact that it was printed and was marked "working paper." It has a totally different status, and that working paper was widely distributed in the country to people interested in engineering education, and it was then followed by four regional meetings. We met in Washington, in Chicago, in Dallas or Houston--I can't remember which it was--and in California. I think we met over in the peninsula somewhere. I've now forgotten. But those regional meetings were designed to allow people interested in engineering education from a particular part of the United States to meet together and spend a day talking about that working paper. We had members of the board sit as a panel to introduce different sections of the report, and then we invited dialogue with the audience. Those four sessions were extremely useful to get grassroots reaction to the working paper so that when we finally finished the four regional meetings, we took all of the commentaries back. On the basis of the working paper, and the commentaries, wrote the final draft of the report.

By that time I think people had participated enough through attendance at the meetings of the board and the regional meetings. We had raised the level of consciousness about issues in engineering education to a point where already institutions were beginning individually to take action, to say we'd better change this or we've got to look at this idea. So that by the time the final report came out, I'd say the interest had pretty much already gone over the top. We, what is the right French word, had reached the *denouement* of the

process. So even though I think the report is a good report, it had much less of an impact than the process that led up to the report.

LaBerge: What impact, if any, did it have on Berkeley College of Engineering, do you think, the process even? Or had you already changed it when you were dean?

Pister: Well, no. It's really hard to say. I was too close to the whole thing to be able to make a good judgment there. Before we leave the process part, I can't avoid talking about the NRC process. When the final draft report is received by the NRC from a committee, it's then sent to a set of peer reviewers. The peer reviewers write their reviews of the report, their objections, their plaudits or whatever. I think there might have been five or six reviewers. Their objections then are sent back to the committee. In this case the committee was largely my staff members, Kirsten and myself. It's required that every single question or objection that's raised by any reviewer has to be answered. So that by the time you finish that process, your responses together with the objections are thicker than the report itself, because you can imagine you get a whole group of people that are all going to have different ideas. It's a huge investment of time and effort. The objective of course is to try to maximize the chances that the report is objective and whatever conclusions are stated are supportable by evidence.

The process is intended to produce as little bias in the construction of the report as is humanly possible. At one point in the deliberations of these committees, you have to go around the table and have a public confession of the possible conflicts of interest. That's all put on the record. Well, I have a textbook in this area, or I own stock in a software company that does this or that. It all has to be made a matter of record.

LaBerge: Did you have any of those?

Pister: No. I did not. So those were interesting experiences. I guess I should mention here, I have one prior experience with the National Research Council that predates the Board on Engineering Education, and I perhaps I should mention that here because it's part of this whole era. I was asked to join a longtime friend and colleague from the 1960s, Mel Baron, from New York City. Mel was an adjunct professor at Columbia University and a principal in the very, very well-respected New York public engineering firm, Paul Weidlinger, and Associates. Unfortunately, Mel died all too early in his life. But Mel and I were asked to be co-chairs of a special committee that the National Research Council put together to examine the field of computational mechanics. Computational mechanics is essentially a field that emerged really and grew dramatically in parallel to the development of electronic digital computers.

From the earliest days of Newton when mechanics began to flourish there was a need to do computation. But the computation that was done was either done by hand or with mechanical computing machines, or as the ability to compute with different kinds of devices improved over the years. So, could the process become more sophisticated? But nothing resembling the incredible acceleration of sophistication ever occurred until a digital computer came along.

Well, this obviously would have been expected to have an impact on the academy and on the practice of engineering, and it certainly has in retrospect. This is going back now to 1981 when I must recall that at Berkeley, we still had just one big central computer,

which had far less power than a little handheld device today, with an old, as I remember, CDC 6400, and had a very, very tiny memory with all sorts of tapes that you had to use to read into the core memory and to record and store stuff on it and keep moving it back and forth into the memory.

NRC Committee on Computational Mechanics

Pister: Anyway, we were asked to chair this National Research Council Committee on Computational Mechanics in 1981, and that was another very interesting experience. I had a wonderful group of colleagues across the country, many of whom have made dramatic contributions to and helped advance the field of computational mechanics. But as I go back and think about that period and look at the report, it's really interesting to see the uncertainty that was still nagging a lot of people, is this something that's really going to go anywhere? Is this something that's different than what we're doing now, and so on? But it was an interesting experience. It led ultimately to the founding of an International Association for Computational Mechanics. I was asked to be a member of the founding council of that International Association for Computational Mechanics, and now they've been kind enough to make me an honorary member of the association by virtue of my early involvement.

LaBerge: On one of your lists you have mentioned the name Guy Stevers, is that how you say it?

Pister: Yes, Guy Stevers--

LaBerge: Was he part of this?

Pister: Guy was, I'm trying to think. He was in the National Research Council in the academy complex somewhere, and Guy is a very well-known engineer from way back. He's been both as I remember an academic as well as a practicing engineer. I remember the only reason I might have mentioned Guy is that at one point Mel Baron and I were distressed that the budget for our committee was basically consumed by the staff support and the overhead and we had no money for anything else. It seems to me that we went to visit Guy Stevers to complain about this, and for that reason I might have thought about Guy Stevers. I don't remember any other reason for putting him in. I see this is a total non sequitur now. But I forgot to connect our trip to Orford--

LaBerge: With your daughter--

Pister: My daughter.

Claire, and the Value of a Liberal Education

LaBerge: So let's do that.

Pister: When I was speaking about Orford, New Hampshire, and the birthplace of my great-great-grandmother Mary Kimball Driggs Rhodes, I forgot to mention that my daughter Claire, as part of a term paper in the Department of History at Stanford in 1980 wrote essentially a biography of her great-great-great-grandmother, Mary Rhodes. It was a very complete piece of research that she did, assisted a lot by my wife who was her staff member for this particular work, a not uncommon parental responsibility that I expect you've shared too. Anyway, it was a very well-written paper, and I was pleased that we submitted it to a historical journal, *Pacific Historian.* That's the University of Pacific's publication, and it was accepted and published in the *Pacific Historian.*

Professor Jim Hart's book, *Companion to California,* much to my surprise, contained a reference to one Caxton Rhodes, whom he characterized as a minor figure in California literature. Well, Caxton Rhodes was the son, I think actually the foster son of my Great-Great-Grandma Rhodes, and by virtue of this and knowing Jim I said, "Perhaps you'd like to read this paper that my daughter wrote." So I gave a copy of the paper to Jim, and he graciously responded that he enjoyed reading it. Whether he did or not, I don't know. [laughter]

But the other thing is that Jim mentioned that Caxton had written a novel, which actually was published serially in the *San Francisco Examiner* back in the, I would guess, in the last part of the nineteenth century. I've forgotten the date. So I got a copy of that novel in the library, and there actually was a volume, and it was called I think *The Sommerfield Affair*, something like that. I didn't particularly enjoy the novel, I might add, and as far as we were concerned Caxton Rhodes was kind of a black sheep of the family. As a child I'd always heard about this, Grandma Rhodes' offspring, although it wasn't, I don't think, her own child, because Colonel Rhodes, her second husband, had been obviously married before. I think she exchanged some rather harsh letters with Caxton, perhaps as a consequence of his being a minor literary figure, he didn't have a lot of money. I think some of the letters had to do with his claim on some of Grandma Rhodes' resources. At one point I think we actually had those letters in our family, but in recent times we've tried to find them and haven't been able to do so. They would've been very interesting to read.

LaBerge: So did Claire get a degree in history?

Pister: She did. Yes. It's wonderful, her degree in history from Stanford is wonderful testimony to the fact that people with a liberal education can be successful in lots of things, because she became a very successful businesswoman and at one point was the manager and co-owner with her husband, of the Great American Music Hall in San Francisco. She managed it for the business, and they subsequently sold it not too long ago actually. I think she took some courses in accounting and things like that, but anyway she did very well. Earlier on she'd started her own music business, but unsuccessfully. I don't know if I--this gets off--

LaBerge: Does this connect with Karl Francis or no?

Pister: No. She's never connected with him. Earlier on she managed a recording studio in Marin County. I don't think I've talked about that.

LaBerge: Oh no. No. No. No.

Pister: You want to put this in?

LaBerge: Why not? It's going to be important for your kids too, and who knows what other research will be going on.

Pister: Claire has had a number of different jobs in her life. [laughter] Before she got in the music business, she sold furs at Macy's in San Francisco, and then she went back to New York and spent a year in New York City working in the fur business for Berger Christiansen, which is an internationally known furrier. On one of the trips back and forth to New York, she was grounded in Denver because of snow in New York City I think, and they were stopped on the way back. She was put up in a hotel with another woman who befriended her. I can't remember exactly how this happened, but she said, "Well gee, you should come and work with us." But anyway, her partner had a music business, a recording studio in Sausalito.

So Claire said this sounded like an interesting job, leaving the fur business and going into the music business, so she became the manager of this recording studio. Santana recorded there, Huey Lewis, and I've forgotten the litany of people who recorded there. She got to know all of these performers, I should say. But she began to get kind of uncomfortable with the way the whole operation worked. Her boss gave her, I think, an old Jaguar to drive at one point. He had a bunch of cars. It was never in tune, and I don't know why she accepted it. The other unusual thing was he came around from time to time to provide resources for Claire to operate this place, and he always peeled off large bills and paid everything to her in cash, to pay the PG&E bills and so on.

Well, in retrospect, I guess it should not have been a surprise to Claire when one morning shortly after she opened up, the door burst open and a group of men carrying weapons came in and said, "Don't anybody leave--we're raiding this place." They searched the whole place and hauled everybody in, and Claire was questioned along with everybody else. She was cleared, thanks be to God, but it turned out this fellow that owned the place--his assets were seized under the RICO [The Racketeer Influenced and Corrupt Organizations] act, which now no longer exists, I just read today. So they seized everything, and he was accused and subsequently convicted of running a meth laboratory somewhere up in the foothills, and all of this money was coming from the sale of his methamphetamines. Well, so the studio was seized by the [U.S.] Treasury Department, and at that time then the fact that Claire was shown to be innocent of any of this—

[26A]

LaBerge: Claire is innocent, and she was hired by the U.S. marshal--

Pister: To manage what became known as "the plant" for the U.S. Treasury Department. So she managed the plant, and I think she actually turned a profit during the year. She was an independent contractor that managed this recording studio for the government. That kind of ends that, but it launched her career. She then created a company over in Albany called Pyramid Music, which had a short, uneventful and unsuccessful life, before she went into other business. I guess we connected that with--

LaBerge: With her history degree. I asked you about her history degree and liberal education.

Pister: Yes, subsequently her business experience became much more, a much more stable and significant part of her professional life.

Engineering Education, Pre- and Post-World War II

LaBerge: Would that be a good segue into engineering education, I mean because we were talking about you being on this National Research Council board and you've been a dean. Could you see a change, well, certainly you saw a change from when you were a student to now. What about in your decanal years too? What was the difference when you left? I'm giving you too many questions at one time.

Pister: No, I think we can insert something here. Engineering education prior to World War II was largely based on the model that was created in the U.S. military academy in the nineteenth century--Colonel Sylvanus Thayer was the superintendent at the time, after whom the Engineering School at Dartmouth is named.

LaBerge: Namely West Point?

Pister: West Point, yes. Engineering, if you look at this over a sufficiently long period of time, engineering initially was essentially military engineering. The engineers that created the artifacts of war, both the protective as well as the offensive weapons of war were military engineers. They built the roads. They did all that sort of thing. The Romans were fabulous for that. Of course there were others as well. Later on in history, much later on in history from the Romans, France had an absolutely superb military school. The École Polytechnique and École Militaire produced the officers and the people that made Napoleon successful. As I remember the calculation of the trajectory of a cannonball came out of the French military experience.

Well, ultimately military engineering spawned what was initially called civil engineering. Civil engineering in the beginning was all engineering that wasn't military engineering. So you see the contrast. So that whether it was mechanical or structural or electrical or whatever, that was called civil engineering in the beginning, for obvious reasons. Then as the understanding of the sciences that supported engineering practice developed and it was possible to move away from what was largely an experiential and artistic understanding of the practice to a more rational or scientifically-based understanding of the practice, as this emerged, it became necessary or convenient to begin to distinguish among different kinds of civil engineering. The different areas of engineering emerged.

This carried on for a long, long time. It's even reflected in the early days of Berkeley when engineering was first started. The old A and Ms, in the Land Grant Act, were Agriculture and Mechanic Arts. Mechanic Arts was a kind of a generic name and umbrella for all of engineering. This was the characteristic of engineering that began really in the military academy in the United States, and then went into places like Rensselaer Polytechnic Institute, a very early civil engineering school. The curricula that supported the practice or basically prepared people for practice was very much, what shall I say, based on experience and art. It was only, shall I say partially or, well, superficial is perhaps too harsh a term, but it certainly wasn't entirely rational. There was

a great deal of appeal to empirical evidence, to empirical formulas, a lot of stuff that was not well known was just kind of dealt with by waving the hands and not by careful calculation because there was no theoretical basis for doing extensive calculations.

That pretty much characterized engineering education up until the World War II years in my view. Certainly although it had improved from the nineteenth century to the twentieth century, there still was a lot lacking. Obviously it had improved or you wouldn't have had the Golden Gate Bridge built or the Bay Bridge built or bridges in New York or some of the big buildings. There was certainly clearly some progress made in understanding the science, the rational basis for design.

World War II made a dramatic change in engineering education. It was largely a consequence of the military requirements for the artifacts of World War II like radar, like proximity fuses, the whole range of technical applications that were largely produced by people that had either an inventiveness or people that had inventiveness plus a background in physics, but not so much in engineering. What happened after World War II was essentially a groundswell of interest, and almost more than interest, a determination to rethink the engineering curriculum. I'd have to say the spearhead of this occurred in the person of a faculty member who I believe was at the University of Florida by the name of Linton Grinter. Grinter actually was a structural engineer. I had a book by Grinter as an undergraduate, but he headed a task group of the American Society for Engineering Education that produced a seminal report about 1954 or '55, I think it was.

The main thrust of his report had to do with the importance of preparing engineering students through a series of, not just introductory mathematics, chemistry and physics, but a series of courses which have now been called engineering sciences. So that before a student was introduced to design and operation of engineering systems of whatever kind, they were given a strong grounding in the sciences that had to do with the behavior of materials and structural elements, the flow of fluids, the flow of heat, the behavior of electrical circuits, study of electromagnetism and in the case of electrical engineers, the study of rotating machinery. So there was a recognition that there was a portfolio of sciences that ought to be mastered by engineering students prior to going into analysis and design of elements or systems that comprised engineering artifacts. That Grinter Report, by the way, and the process of the Grinter Report was the source of the inspiration that I got for the way I handled the Board of Engineering Education report.

LaBerge: All that many years later.

Pister: Yes. So almost some forty years later, I went back and read the Grinter Report. I read the process that he went through, his committee went through, and that informed me. As I think back on that now, I remember with my committee really struggling to try to figure out, how are we going to handle this now? We've produced this report in draft form, but so what? How are we going to get that out to people and build any kind of interest in it and support for it? It was Grinter's process that illuminated for me the possibility of doing this regional deal with the inputs that we received that way.

Anyway, so engineering education became, to use this term, much more scientific and less practically, or practice-oriented. My undergraduate years were spent in the very heavily practice-oriented part or phase of engineering education. My graduate years, particularly for my Ph.D., were way over at the other end in the engineering science end

to the point that, I think I may have spoken to this earlier, when I finished my Ph.D., I felt much closer to being a scientist than I did an engineer. I wanted to work in the realm of applied mathematics and abstract problems rather than get involved with real world problems. So much so that I still remember sometime in the 1950s when I was a young faculty member here, the dean of engineering, Mike O'Brien at the time, for reasons that are not clear now, called a meeting of young faculty at the Faculty Club. We were sitting around in the Great Hall--I can still see him. He was on the north side of the table when he said this. You'll see what an impact it made on me.

He said to this assembled group of young faculty members, "Engineering has everything to do with, or design is, the critical function of an engineer. Design is everything in engineering. If you're not interested in design, you don't belong in engineering." I remember I was appalled by this statement because, given the remarks I just made and my own interests, I just couldn't have the slightest interest in the design of anything or the application of what I was doing, to any real world engineering problems. It just was not something that interested me. At the time, of course I totally ignored what he had to say, except to get angry with him for this old guy who was a dean telling me what I should do as an engineer and faculty member. Of course, he was absolutely right. The irony here is that when I became dean, I was saying the same thing [laughter] even though I spent a number of years coming around to that position. Certainly most of the consulting work that I did over the years obviously had an ultimate application in design or they wouldn't have been interested in having me to come to talk with them, because engineering is certainly, if nothing else, it has to produce products or support the production of products or systems, such as water supply or an electrical grid or whatever, or it's not doing its job.

So to get back, there was a huge shift in what I'll call the pendulum of emphasis in engineering education away from practice and application on one hand to the science side that supports the practice of engineering to the point where--. This was not just Berkeley. This was the entire United States virtually. This pendulum swing went so far that some of the really important practice-related courses in engineering curricula were dropped. For example, the courses in manufacturing processes, in some of the hands-on laboratory work that was done in metal forming and manufacturing of different kinds were dropped.

I don't know if this history has been really seriously studied and documented, but certainly there was a general feeling in the country that in the 1980s, when we were faced with the incredible presence and the domination of Japanese manufacturing, there was a lot of introspection about this issue. I remember the term "Japan, Incorporated," their emergence as the dominant manufacturing nation in the world; people reflected on it and said, well, how did that happen? Well, engineering education in this country got away from manufacturing, away from the practice of engineering too much, and we lost our ability to do innovative design and redesign. We can't bring products to market fast enough. The cycle time is too long and a whole series of things that were either completely or partially attributable to our failure to balance our educational system in engineering were seen to be at the root of our competitive position now that we were not a dominant force in world manufacturing.

I'm not sure now some twenty years, or fifteen or twenty years past that period, if one were to go back and look at it again, how one could partition out or parcel out the attributions as to what caused what. But certainly it had the effect of bringing back into engineering education a regained emphasis on the importance of design and

manufacturing and the whole complicated process of bringing materials in on time, the quality of the process and all sorts of things that now we take for granted. It was a very interesting period of history.

I think really what was not seen clearly at that time, but is well understood today, is that we were really in the early stages of the globalization of the world economy, that the global marketplace was daunting, but it wasn't necessarily recognized yet. We, in the United States at least, were so used to being the dominant manufacturing nation that we didn't have to worry about foreign markets. We made U.S. products. We sold them here, and what was left over we could sell anywhere in the world and people wanted to buy our stuff, and the idea that somebody else could make cars better than we could simply didn't exist. When we lost that capability, I think it was a very harsh reality for this country. We didn't understand that it wasn't necessarily just that we'd lost some of our competitive advantage, but this was an inevitable consequence of the globalization of the world economy, and there were other nations that had built up their capacity and were now competitive.

LaBerge: I got you off on engineering education, how it changed.

Pister: Where we are today, it's hard to say. I think we are much better balanced in terms of the balance between practice of engineering and the science of engineering. Something that I've talked about a lot and tried to emphasize during the time I was dean was the importance of bringing into the education of our students the experience and the insights of practitioners of engineering, to use the medical term, a clinical faculty in addition to our regular faculty. Some departments did some of that and some better than others. I still think if you have responsibility for what is called a practice profession, like architecture or engineering or medicine, it makes no sense to do all of the teaching and research absent the connection with the practitioners of the field. I wish there were a little stronger recognition and realization of the importance of that. I've often said that if medical schools didn't have their clinical faculties, most of us would be dead at this point. The practice of medicine would have really been denigrated there by--

LaBerge: So did you go about getting more clinical faculty?

Pister: Deans can't get faculty, certainly not at Berkeley. All I could do was to try to encourage and support any interest in this. My colleagues in civil engineering did a fair job. Certainly I'd have to say invited speakers brought people in. We had visiting faculty positions that were often held by industry people. We brought back a number of people from industry and put them on the tenure-track faculty ladder. They did quite well generally, almost in every case.

Industrial Liaison Program, 1980s

Pister: That opens up something that's related to education, Germaine, that I think I could mention here. That's the importance during the 1980s of what we in the college called the Industrial Liaison Program. My predecessor, Dean Ernie Kuh, had the foresight and took the initiative to set up for the College of Engineering, what he termed and we kept the

name, Industrial Liaison Program. This program was basically departmentally based, but we celebrated it at an annual event put on by the college each year in March.

The purpose was to encourage faculty members to seek out and form relationships based on their research with companies, not only in the Bay Area in California but across the United States and the world. Each year in March we presented a two-day program at which we would have some general lectures on the first day, giving a kind of an overview of a particular field or something like that for all of the participants. Then we'd break up into departmental subgroups and the rest of the time have programs that would be specific to computer science or mechanical engineering or whatever. They would typically be opportunities for faculty members and graduate students to make presentations. The people that came--we typically had four or five hundred people come to these meetings from across the United States--would not only have the chance to see some of the latest research results in the college, but many of them saw this as a great opportunity to look at students and do recruiting while they were here. This program went on, and I think at one point we had about three hundred companies that were connected to our College of Engineering. At various levels and over different periods of time, these companies made substantial gifts or grants to college faculty for the conduct of their research. So it was a very, very effective process. I was surprised to see that currently we're not doing this in the college anymore so I don't know what the alternative is. I haven't had the chance to talk with Dean [A. Richard] Newton to see how this has evolved.

One of the interesting things is that each year, the dean gave an introductory welcome to the members present, and that was my opportunity to give a pep talk about the College of Engineering where we were and where we were going. We also had a dinner the first evening as well. Normally, we would have the dinner over in the Pauley Ballroom because of the size of the group. Well, I can't remember which year this was, but one year when Governor Jerry Brown was an aspirant at that time for, must have been--

LaBerge: President?

Pister: He would've been running--no, I think he was running for the Senate. It must've been that because he was still a member of the Board of Regents. So he must have been governor, but I think he was running for a Senate seat at that time. Must've been the United States Senate--

Anyway, Jerry Brown called, his people called my staff and said, "Jerry Brown wants to be invited to give the dinner talk at this ILP meeting."

LaBerge: ILP, okay.

Pister: Industrial Liaison Program dinner. Brown wasn't terribly popular with the campus, and also since many of my ILP people were, shall we say, of a different political party, my first reaction was to call up Mike Heyman and say, "Mike I've got a problem. Jerry Brown wants to speak at our ILP dinner. Do I have to invite him?" [laughter] Mike said, "He's a regent in the university. You'd better invite him." So we invited Jerry Brown, and he had as governor previously the first year turned down funding--it was a microelectronics bill or allocation to build a microelectronics fabrication laboratory in Cory Hall. He turned down the funding for that in his first year. So that had soured him to many people here. Second year, by the way, he put it in. It was taken out in the

conference negotiations because somebody slipped up and didn't realize it was a stupid thing to knock it out. But anyway, we invited Jerry Brown, and fortunately, Jerry Brown at that time had gotten religion and saw that science and technology and engineering were important in the state of California, and he gave a really, a fairly decent talk.

But leading up to that, one of my really wonderful supporters was Ed Garbarini, who is now deceased; he was a senior member of the Bechtel Group and a wonderful counselor and friend for me. When he learned that Jerry Brown was going to be the speaker, he said, "Well, he better not sit at my table because I might punch him in the nose." [laughter] In fact, Jerry Brown did sit at my table with Ed Garbarini, and Ed fortunately didn't punch him in the nose because I think maybe his speech ameliorated his feelings a bit. That was a really interesting experience.

LaBerge: I guess so.

Pister: I never will forget that. That kind of pairs with my experience with David Saxon when David Saxon, you remember, told Jerry Brown that he ought to stop running for president and stay home and tell people to vote against Proposition 9.

LaBerge: Now I can see the wheels turning, that he was going to reach out to people from all over the country if he--

Pister: Sure.

LaBerge: I'm just going to--

More Engineering Committees and Boards

[26B]

LaBerge: So we're still on either engineering education in general or--

Pister: There's some more things we can talk about. They're really connected to engineering education or my decanal years. I mentioned that I chaired the review committee for civil engineering at Stanford. Well, I was also asked in a subsequent year to--I don't believe I was chair--but to be on the visiting committee for the Department of Mechanical Engineering at Stanford. I had the opportunity there to renew acquaintance with a number of people that I knew in mechanical engineering already at Stanford and to make some new friends. In fact one, the chairman of mechanical engineering at the time, is now a member of my board of directors of the California Council on Science and Technology that--

LaBerge: And who was that?

Pister: Charles Kruger. Perhaps I should note here that even though my undergraduate degree was in civil engineering and I spent the thirty or forty-some years as a member of the faculty of the Department of Civil Engineering at Berkeley, I've always had a strong

connection to mechanical engineering. Most of my consulting work has been either in mechanical or aeronautical engineering areas, and less so in civil engineering, although my research in structures was connected to that. But I'm also a lifetime fellow of the American Society of Mechanical Engineers, and oddly enough I'm not even a fellow of the American Society of Civil Engineers for some reason. I received a very fine award from the applied mechanics division of the American Society of Mechanical Engineers. I received their honorary award of the division of mechanics.

LaBerge: Does it have a name to it?

Pister: It does, and it's the one plaque I have on the wall in my office. Another connection to engineering education I'd like to make here, in 1986, I was appointed to the advisory committee for the directorate for Science and Engineering Education of the National Science Foundation. That directorate is now called Education and Human Resources, and by coincidence the cycle kind of completed. A couple of years ago, I went back to that directorate at the request of the National Science Board, and along with a colleague did a review of their entire portfolio of grants. That directorate now has a budget of about nine hundred million dollars in science and engineering education, but at the time I joined it it had struggled mightily under the early Reagan years.

The Reagan administration had essentially zeroed out its budget trying to get--I think in the Reagan years there was an attempt to not only get the federal government out of education there, but Reagan was trying to kill the Department of Energy. There was a sunset team that was trying to kill--I think the Department of Education was about to be killed, and this being a directorate of NSF that was totally dedicated to education, science and engineering education, it was a likely target for the budget people of his administration. I remember the president's budget did whack it, but I think Congress put money back into it, and it began to build the budget back up again, and by the time I got on the advisory committee it had been turned around again and was growing. Now, under subsequent administrations, it has really blossomed dramatically.

I should mention the assistant director of NSF for that directorate was a professor on leave, a professor of chemistry at the University of Wisconsin, by the name of Bassam Shakashiri. There were several people on that advisory committee back then that I met for the first time that, for one reason or another, have reappeared in my professional life and people that I have great respect for. The first that I would mention is Walter Massey. Walter at that time was at Argonne National Laboratories in Chicago. It was really a pleasure to meet him there, and later on, of course, Walter became the director of the National Science Foundation. From that position he came to the University of California where he was senior vice president, academic affairs and provost. That occurred when I was chancellor at Santa Cruz.

I remember after Walter had been appointed to the position of senior vice president and provost, but he was still in Washington at NSF, I paid him a visit. I remember going into his office and talking to him about it and saying, "Well, Walter, when you come to UC, you're not going to have an office like this." So even though it was an NSF government office, it was better than his office here. I have great respect for Walter, and I'm awfully sorry we lost him back to Morehouse College, where I know he's much happier than he was in Oakland. Walter, just to follow up on that, was at the university at the worst possible time. We were in the budget trough, and he had to bear the brunt of the regents'

displeasure with our admissions policy and the whole issue of affirmative action and Prop. 209, and it was just more than he wanted to deal with.

The other person, or another person I should say, that I met and continue to this day to have considerable interaction with is Jim Rosser, who is the almost thirty-year president of Cal State Los Angeles. Jim and I have crossed paths over and over again. Most recently, he and I serve on the National Academy of Engineering Task Force on diversity in the engineering workforce, and Jim also serves on the California Council for Science and Technology, again for which I have responsibility as chairman of the board of directors. I see him quite regularly and our friendship goes clear back to that period when we served on the science advisory committee.

LaBerge: Is this a good time to approach one of our big topics? World War II and postwar changes on campus and the university, which we talked about a little.

Pister: I think I wouldn't want to do that one right now. Let me see if there's anything else I ought to pick up today.

Washington, D.C. Contacts: NSF, AAAS, DOE

LaBerge: What changes, when you finished your deanship, how do you think you impacted the college or is that too big of a topic for you today?

Pister: That's something I think I can't get into. I'd rather try to clean up some of the things we still haven't talked about in my decanal years.

We're still in the 1980 years. I want to be sure I've picked up everything. I think it might be interesting to put in at this point some more things about my contacts in Washington because I was spending a lot of time going back to Washington. I served on a National Academy panel to review the reorganization of the engineering directorate of the National Science Foundation. This was a time I believe when Erich Bloch was the director of the National Science Foundation. Erich was an electrical engineer from IBM that I got to know quite well. He made some major changes in the organization of engineering and the kinds of activities that the engineering directorate supported. So that was an interesting experience, which I shared with my colleague that I've already mentioned, Art Anderson, who was on my own advisory committee.

The other thing, in connection with the NSF, that I felt was an important opportunity that I had. I served on a review panel for the director of the National Science Foundation to review their graduate fellowship program. The NSF graduate fellowship program is the very honorific program that gives graduate students support in science and engineering. If you're an NSF fellow, it's a real honor and a really important part of your résumé. Our job was to examine the program, the level of funding. The outcome of that that I want to call attention to was the broadening of that program, or I should say to provide within that program a focus on underrepresented groups in science and engineering. I took a leadership position in insisting that there be special opportunities both for women and for ethnic minority students in this program, because the data showed that if you were a

woman or ethnic minority person your chances of getting an NSF fellowship were low. So this was back in the eighties, of course, before all of the affirmative action wars started. We were able to break off a special program that identified women and ethnic minorities as a target group. At least for a period of years, that helped to bring such groups into the science and engineering pipeline.

I served on the executive board of the engineering deans' council of the American Society for Engineering Education and on the board of directors for this engineering deans' council. I think I mentioned before I had the opportunity at those meetings to meet deans of engineering from around the United States and Puerto Rico as well, a very good friend who was dean of engineering in Puerto Rico. They were really special opportunities. In a sense they were learning opportunities, and at the same time they offered often the opportunity, for lack of a better way to say it, for group therapy sessions for people who needed to find peers that they could talk openly with about their problems. I found the same thing to be true with the Council of Chancellors' meetings but in a different period of my life. You got business done. But it was also a great opportunity to share common problems and to see that you weren't the only one who had the recalcitrant faculty member or the unreasonable requests from the department chairman or a president or chancellor who was beating on your head over something.

LaBerge: It's lonely at the top. You can't talk to just anybody.

Pister: That's right. No. One of the other things that happened I note in 1987, much to my surprise, I was appointed, through a gubernatorial appointment of Governor Deukmejian, to an advisory committee called the Competitive Technology Advisory Committee of the Department of Commerce. This is one of the few appointments for which I received at the end of the service a special scroll commemorating the fact that I was an appointee of Governor Deukmejian. So somewhere lost in the files at home is this scroll attesting to my service on that Competitive Technology Advisory Committee. It was a good idea. It was a generalization of a program that had been extremely effective in the university.

The microelectronics program, which I mentioned already in connection with Governor Brown, it's a program that enabled faculty members that had a research idea to find an industrial colleague who could match state funds and join in a team effort. These proposals were then put together and sorted out and ranked, and the microelectronics funding in Sacramento in this case was then distributed to the successful candidates that had submitted successful proposals. So it encouraged the leveraging of state funds through private funds basically.

Well, the Competitive Technology Council did the same thing. It had a staff. It had an organization with a certain number of dollars that encouraged, more broadly than microelectronics now, the leveraging of state funds with private funds. Fortunately, there are some fine people on that. Our Nobel Prize winning chemist Professor [Yuan] Lee, who fled to Taiwan from Berkeley and was a member of that committee, and other very fine people. The problem is that it was a program that fell at the end of Deukmejian's administration and his successor--

LaBerge: Pete Wilson.

Pister: Pete Wilson did not pick it up. That was the end of that one.

I notice a couple of other things that I'd like to call attention to here. In 1990 I was invited by the American Association for the Advancement of Science division on education and human resources, by its director Shirley Malcom, to join her committee on Opportunities in Science. Shirley is an African American woman, a biologist by background, a tremendously vital and energetic source and leader for minorities in science who has served on the National Science Board more recently. Shirley put this committee together to advise her division of the AAAS on programs to encourage more underrepresented students, particularly students of color and women, to pursue careers in science. It was another opportunity to become attuned to this critical problem in our workforce in the United States, to get a national perspective on this.

There are a couple of things that happened. Are we okay on time?

LaBerge: Yes.

Pister: I can't remember now where the connection came from. There was a consulting firm in Washington, in retrospect I'd have to call them one of the Beltway Bandits, the firms that live in the beltway around Washington, D.C., that live off the federal government. Anyway, I was asked to put together a group, which was called the Science and Engineering Education Review Group to advise the office of Environmental Restoration and Waste Management of the Department of Energy.

The office of Environmental Restoration and Waste Management of DOE had a responsibility for dealing with, as the name suggests, all of the problems of clean up of the DOE. At that point, this was late 1980s. They were getting a lot of money. They were trying to figure out a program that would ensure that we would have a technically competent workforce that could conduct the environmental restoration--not only the engineers but the technologies that could be used to deal with the safe removal of hazardous waste. Well, I was asked to put together a committee, a group. I did that and got some, I thought, really good people. We met a number of times in Washington and prepared a report for the head of this office.

I never really got along too well with this gentleman, and it began with the fact that I had met the secretary of energy, Admiral [JamesD.] Watkins, during the time I was dean of engineering. Admiral Watkins and his wife came to Berkeley to witness the commissioning of one of their sons. This son was a student in letters and science at one point, but he wanted to change to engineering, and to be absolutely honest, he didn't have a great record. So I said well, his chances will be best if he transfers to nuclear engineering, because nuclear engineering in the eighties wasn't terribly popular at Berkeley. So it was easier to get into that department than say electrical engineering. So he followed the advice that I gave, and he did transfer to nuclear engineering and graduated successfully in nuclear. His mother and father, his father at the time was the chief of naval operations I believe, came out and my wife escorted her during part of the day. We had a lunch at the chancellor's house, and I sat down and got to know Admiral Watkins.

Well, since I became chair of this group and had to go to Washington to DOE, I decided I would pay just a social call to the admiral, who was then secretary of energy. It would've been the Bush administration, I believe. It was a perfectly innocent thing. I had no axe to grind. I just wanted to say hello to the admiral whom I had great respect for and had met before. Well, the appointment was set up. I arrived in Washington and found out the

appointment was cancelled. I learned subsequently that it was cancelled because the head of this office, on finding out I was going to go see the admiral was absolutely mortified or furious at me that I hadn't cleared this with him because he thought--he had no idea what I was going to talk about. He thought I was going to say something about his office or his programs or him. So the whole thing fell out, and that was the end of that. [laughter] I never did talk to Admiral Watkins. In fact I haven't talked to him since.

LaBerge: How did you even find out that was--

Pister: The staff guy who was part of, he was working for the Beltway Bandits, he was very well plugged into what's going on in DOE. He knew the gossip and all going on, and I learned it from him. It was just one of those crazy things that happens.

I also note in this same period that I became chair of the faculty advisory committee for Lawrence Hall of Science. I got to know Glenn Seaborg through this much better than I had before. Of course, Glenn had been chancellor at Berkeley, and I knew him at a distance, but I had never had a chance to work with him. But as chairman of this faculty advisory committee of the hall, I spent a lot of time with Glenn and got to know him and really was always very warmly received whenever I talked to him. I have great respect for Glenn and for what he did for the university and for the nation, for that matter. He was a wonderful gentleman.

Diablo Canyon Safety Committee

Pister: Another, it's kind of connected to the whole nuclear business. In 1989 I was asked by the president of PG&E, George Maneatis, who was a good friend of the College of Engineering, to accept an unusual appointment. PG&E had lots of Berkeley people in their engineering force. I was asked by George to serve on a committee called the Diablo Canyon Safety committee. You may remember that the Diablo Canyon Nuclear Power Plant, on the coast near San Luis Obispo, caused a great deal of local opposition and even opposition at a distance. There were several groups that sued PG&E over this. Ultimately, the court resolution of the lawsuits led to the creation of a special safety committee that had the responsibility of periodically reviewing PG&E's management of the nuclear power facility, to be sure that they weren't running it in a way to maximize profits that might endanger the environment. So they had, in other words, to be shown to be responsible managers of the power plant, because there was a fear that they would run it too fast and damage the environment.

So this safety committee that I was appointed to wasn't the committee to make that judgment. We had to set up a process that would invite candidates to become members of this safety committee. Then the governor and the speaker of the assembly and the chairman of the Public Utilities Commission or the energy commission, I can't remember which, each got to select three people from this panel that we would propose. So our job was to set up the process and identify this pool of people. It was a really interesting experience to go through this. You can imagine some of the whacko people that applied for this that we had to dust off right away. Then we had to go out and twist arms to get some competent people to apply so that the people who would be monitoring this would

be people who could actually make rational decisions about PG&E's performance. I gained the eternal gratitude of the president of PG&E for that. It didn't help our PG&E stock subsequently because of what happened in the marketplace. So maybe we should stop there.

College of Engineering Commencement, 1989

[Interview 14: April 11, 2002] ## [27A]

LaBerge: We were going to go back and pick up some of the things in the eighties, and you have an anecdote about the 1989 commencement.

Pister: Right. This is out of context, but my son Kris reminded me of this, and I'll have to put it in the record. The 1989 commencement was very special to me because my son Kris, who was then a graduate student in engineering, was awarded his master's degree in electrical engineering that year. So I had the opportunity to shake his hand; actually I didn't shake it. We exchanged high fives when he walked across the stage to get his degree. But he reminded me of a misstatement of gigantic moment that I made during that ceremony. It was our custom for the dean to formally award the degrees, for each of the kinds of degrees, bachelor's degrees, master's degrees and the doctorate in the name of the regents. A dean is delegated that authority at commencement. So you start in by asking the candidates to rise and then, "By the authority vested in me by the regents, I confer upon you..." Well, when it came time to award the bachelor's degrees for engineering, here is what I said: "Will the candidates for the bastard's degree, please rise?" [laughter] You can imagine what happened in the Greek Theatre that May, 1989, when I made that misstatement. I can't remember now how I recovered from that gigantic misstatement. I somehow managed to do so.

LaBerge: Did the press pick it up?

Pister: No, I don't think there was any press there, but I must have shocked a lot of the parents that were there. I think maybe some of the students probably felt it was an appropriate characterization of their degree. Anyway, so much for the commencement of 1989.

Plutonium Air Transport Certification Program

LaBerge: Well, the other things we had written down to pick up was on plutonium, two different groups. One was the board of senior consultants. What was that?

Pister: I had some interesting responsibilities in the late eighties for the Lawrence Livermore Laboratory. I was appointed to a board of senior consultants to study or to work on what was called the plutonium air transport certification program. This was a Department of Energy initiative, of course. The problem here to be solved was how to move the fuel rods, the contaminated fuel rods, from a reactor into a processing plant, to basically

remove the hazardous materials and to regenerate the fuel rods for future use. Of course, these fuel rods are extremely hazardous, as the name suggests, so that the transport not only had to deal with issues of physical safety, but one had to ensure or maximize the security of these fuel rods as well. So security broadly writ is what I'm trying to say. For reasons I can't quite remember now, it was deemed inadvisable to move these fuel rods by conventional means. First of all, they would be in lead casks totally shielded. The lead casks were very substantial, but it was deemed, by whom I don't know, inadvisable to ship these things by ocean freighter. I think the reason there had to do with the possibility of hijacking the ship on the open ocean, and the bad guys would get the plutonium that way.

LaBerge: Where were they being shipped?

Pister: Well, they would go from, for example at this time, from the United States or from Europe, I believe it was from France we were looking at, for reprocessing in Japan. The Japanese apparently had the processing capability. So if you can't do it by sea, and you have to move it from one continent to another, the only other alternative is to do it by air. Well, you can imagine the complexity of trying to do a simulation of carrying these lead casks of hazardous material in an airplane. As long as the airplane is flying, there's no problem, but suppose alas that the airplane were to crash. What are the consequences? Would there be a massive dispersion of this material if the lead casks fly open and so on. So I don't remember how long this went on, but for a certain period of time, months, we met to try to understand as best as possible how to model the crash of an airplane, a jet airplane carrying these fuel containers.

At the time there was a limited amount of data available from analysis of plane crashes of different kinds. There earlier had been a very unfortunate crash of a PSA plane outside of Danville on a flight from southern California, where a disgruntled employee with a pistol broke into the cockpit and shot both of the pilots, and the plane crashed outside of Danville. There were all sorts of forensic follow-up of that particular crash. We tried to use that material to develop some kind of a model. Fortunately for everyone concerned, I believe, at a certain point this whole thing was called off, and I don't know how that problem was ever solved. We didn't fly, to my knowledge, any of these casks, nor did anyone steal one to my knowledge.

LaBerge: So they were transported by sea.

Pister: I don't know what ever the outcome was, but all I know was this strange study that we did in some detail fortunately never led to anything that was consequential.

LaBerge: Who else was on the committee?

Pister: It was a group of colleagues. My good friend and long-time colleague, who at that time I believe was at the University of Pittsburgh, Max Williams, was one of the people that I brought in. Max was an aeronautical engineer, long-time Caltech professor. I can't remember the names of other people at the time.

I had one other interesting experience as a consultant to Lawrence Livermore Laboratory. It again alas connected with plutonium. At one point the Department of Energy thought that it was going to be necessary to build a new plutonium reactor to produce tritium,

which is a critical component of nuclear weapons. There's all kinds of worry about where to site that new reactor. The reactor that had been producing it was down in Savannah River, Georgia, and it was shut down, couldn't be operated again. We again went through a huge amount of analysis. Our group's responsibility was to determine the resistance of the reactor containment vessel to all kinds of hazards, both natural and man-made. We were looking at several sites in the country. Once again, this study was terminated because, thanks be to God, our government decided not to build another plutonium reactor since the nuclear weapons philosophy changed as far as I know.

I had one other interesting responsibility for an agency of the Department of Defense, the Defense Nuclear Agency, DNA. I was appointed to an advisory committee called SAGE. That stands for Scientific Advisory Group for Effects. That is, the effects of nuclear explosion on structures of one kind or another. This group was a combination of academics and people from the aerospace industry and some military people, and we basically reviewed the air force's capability to shield our missile facilities from nuclear attack. Of course, this was a highly classified operation. The one thing I can remember about it was at one point being told, well, we're going to have to clear the room, and only people with this so called--let's see--special compartmentalized information clearance (SCI) could stay in the room. I had that clearance. We were shown a very damaging film about what would happen if such and such a thing would happen. Almost I think either the same evening or the next evening, I went to a dinner of this group when a person from another agency came and showed a film that essentially replicated the very thing; it wasn't the same film. But it went over the same phenomenon in a totally unclassified presentation. Did I ever talk about getting my SCI clearance at Livermore?

LaBerge: No.

Pister: Because it's a crazy thing. Of course, as a consultant at Livermore, I for years have had a level Q clearance but because--

Q Clearance and Special Compartmentalized Information Clearance

LaBerge: Just for other people, want to say what a level Q clearance is?

Pister: That's a clearance that gives a person, with certain restrictions, access to information that's covered under the Atomic Energy Act of 1946, I think, or something like that. In other words, it preserves the security of nuclear weapons information and related matters under the Department of Energy. But the SCI or special compartmentalized information clearance is a higher level of clearance that gives you special access on, of course, a need-to-know basis. You don't just say, I want to look at something. Need-to-know on special kinds of very sensitive information. In order to get this clearance you have to have a special briefing, and I had that briefing out at Livermore in, I think, a place called the Blue Room. In order to get into the Blue Room to get this clearance, I had to have another badge clipped onto my regular badge to show that I could get into this room. We sat through a one-hour presentation, a film as to what SCI meant and all kinds of codes to talk about, things in coded language that you couldn't talk about in plain English. So much for that. Of course, by this time, I've totally forgotten everything that I saw there,

but I probably don't have the SCI any more either. The thing I want to mention is, at the end of this presentation the security officer administering it brought us each a clipboard with a long set of disclosures and conditions on it. At the end it said, "And I hereby swear that I will not disclose anything that I have seen during this presentation for seventy years."

LaBerge: For seventy years.

Pister: For seventy years, yes.

LaBerge: Should you talk about it?

Pister: Well, I didn't disclose anything I saw. But at the time I must have been in my fifties. So I thought it was a pretty safe thing to sign, assuming that I have no capability or inclination to disclose it in the life after. [laughter]

LaBerge: When you say security officer is that like the FBI?

Pister: No, this would've been a Livermore person that was authorized to conduct this kind of training or briefing or whatever.

LaBerge: Did you have to go through some kind of FBI clearance too?

Pister: Of course. If you have a Department of Energy clearance, you go through a complete background check every five years.

Committee Service with Henry Yang and Chuck Vest

Pister: There are some other things that I'd like to mention in the late eighties, when I was still dean, that are of interest. On one occasion I joined two colleagues to form a visiting committee to advise the dean of the college of engineering and the provost at Penn State University. This was my first and only trip to State College, Pennsylvania. I think it's still called State College, Pennsylvania, even though it's a state university now. I don't think the town changed its name. But anyway, it was a memorable occasion because I joined two colleagues there that I knew as fellow deans of engineering, each of whom has gone on to assume more substantial responsibilities. The first was Henry Yang. Henry was at the time dean of engineering at Purdue University. The other was Chuck Vest who's now of course president of MIT. At the time Chuck had just become provost of University of Michigan, having moved from dean of engineering to provost. I remember joining with them in that review--two wonderful people that I've been in touch with over the years and for whom I have great respect.

LaBerge: And Henry Yang went to San Diego?

Pister: Henry is now chancellor at UC Santa Barbara.

LaBerge: Santa Barbara.

Pister: I might mention when Henry was asked to be chancellor at Santa Barbara, he was then, of course, at Lafayette, Indiana, at Purdue, and I was still at Santa Cruz. I remember him calling me saying he'd been offered the position. My first statement to him was, "Henry, why would you want to go to Santa Barbara when it's in such a state of turmoil?" Of course totally ignoring the fact that I did the same thing at Santa Cruz. [laughter] I should add for the record, Henry has done a superb job while at Santa Barbara. Let's see. Some of the other things that took place in this period--

LaBerge: Do you want to say more about what you did at Penn State?

Pister: No, we just reviewed the college of engineering and advised the dean and the provost as to what our perception was as to the quality, the problems, the strengths and weaknesses of engineering at Penn State. I don't even remember the name of the dean any longer.

More on Faculty Relationships with Industry

LaBerge: What's your personal take on the university's relationship with industry? I know in the College of Natural Resources there was a big controversy over Novartis.

Pister: Novartis, sure.

LaBerge: But you must have had the same kind of--

Pister: Well, when I became dean in 1980, we were in the very early stages of formalizing our connections with industry in the College of Engineering. There had been historically lots of individual faculty interaction with colleagues in industry, no question about that. But my predecessor, Dean Ernie Kuh, I think to his great credit, saw the need and the opportunity that would be afforded if the College of Engineering formalized its relationships with businesses and industry in not just California but in the United States by creating what was called the Industrial Liaison Program.

LaBerge: I think we spoke about that.

Pister: Did I?

LaBerge: Go on.

Pister: In that case, we could meld the two discussions. That program basically encouraged industrial support of research in the college through individual faculty members and/or departmental coalitions of faculty to join together to work on problems of mutual interest. That program was extremely successful. I built on what Dean Kuh started. We had annual meetings that were attended by upwards of four or five hundred people with programs that showed the guests what our faculty and graduate students particularly were doing.

I would say that my experience with this program at Berkeley did not uncover the kinds of reservations that are typically expressed by faculty who see danger in incursions or restrictions of academic freedom of faculty in joining too closely with industry. Certainly

individually, I have had a lot of industrial support over the years. So I have personal experience. But even as a dean looking at the programs of individual faculty, I simply don't find evidence that faculty members' research integrity has been compromised in any way by industrial support or working with industry. Quite the opposite, I would say. What I will say, of course, is that the area of application of the faculty members' research may be perturbed or motivated one way or the other by the availability of industrial support. That certainly was the case for me, but I never did things that I didn't want to do or that I didn't believe in and I don't think--well, let me put it in a positive way. I would suspect that very few Berkeley faculty at least would be willing to take on something that they didn't believe to be professionally in their best interests.

LaBerge: As you were saying at the meeting today, that faculty do things in their best interests.

Pister: Of course.

LaBerge: Anybody does.

Pister: They're not going to do something that will damage them. Again, if I can personalize this, very often the work that I did as a consultant with industry would be such that the actual effort that I put in might not have been seen as something that the Budget Committee would think would stand up to scrutiny of archival publication. But on the other hand, that was my connection to my professional responsibility as an engineer. On the other hand, very often the outcome of that kind of consultation would be uncovering a problem or a class of problems or an area of work that needed further exploration. In a number of cases, not typically, I'd be able to follow on that consultation with a grant or a research contract that would support the research of myself and students. That kind of work then was essentially the type and quality that the Budget Committee could scrutinize and say yes, this is appropriate for recognition as a creation and application of new knowledge. So you can't really legislate things like this in my view. I know the tremendous controversy over the Novartis deal raised all of these issues to a new level, I think. But in the final analysis, it's really going to depend on the integrity of each and every faculty member as to whether or not such an arrangement is in the best interests of the campus and university or not.

LaBerge: Well, I've diverted you a little bit.

Pister: No, that's fine. That's fine. I'm trying to see if there are other things in this period that--

New Dean Search, 1989

LaBerge: That we left out.

Pister: There's some more things that now come to the point. Perhaps it's useful to say that I can't remember when, I think it was in November or December of 1989 that I told my colleague, Provost Jud King, or I told the chancellor, probably both of them, that I planned to step down the first of July 1990. So they created a search committee and started looking for my successor at that point. But an interesting thing happened that in

the *Daily Cal* I noticed--I must've kept a copy of the February 14 *Daily Cal* said "Engineering dean Pister steps down," and they had the wrong photo of me with the story.

LaBerge: Whose photo was it?

Pister: I can't remember.

LaBerge: Not Kenneth Pitzer.

Pister: No, it wasn't Kenneth Pitzer. But it was interesting when I was appointed dean in the spring of 1980, the old University Bulletin that used to come out had a picture of myself and the Dean of Optometry Jay Enoch. We were both new deans, and they had the names switched on the picture. So I never really did get properly identified either coming or going into the deanship at Berkeley. Anyway the search went on.

LaBerge: Did you get involved in the search or not?

Pister: I think that typically the search committee meets once with the dean, and that's it. Then you're totally out of it. Nobody asks you what you think of the candidates down the stream. That's been pretty true. That was true when I was chancellor as well.

LaBerge: So it goes across the board for all deans, not just engineering?

Pister: Yes. It's a campus protocol basically, or even it's a university protocol that the incumbent is not really part of the search process. At least I've never seen that happen. Some interesting things happened in that last year that I might mention. Certainly early in the year a memorable event was that my first grandson was born, Brendan Whitmore, the son of my daughter Jacinta and her husband Richard. Jacinta is, by the way, the engineer daughter, and at the time they were living in Monrovia, California. I think it's amusing. My daughter is very, what shall I say, one word to describe her is peripatetic. She never stops talking and is always in motion and very frequently speaking with an elevated level of volume. Her husband is just the opposite. But at any rate, her time came, and she and her husband hopped in the car to take off to the hospital and got a flat tire on the way. As I remember the story, there was some discussion as to whether they should change the tire or not, but I think my daughter finally said--I don't know the exact words but I can guess what they might have been. [laughter] I think that an emergency vehicle was summoned, and they got her to the hospital in time. I still remember that story.

I should back up a bit here too because some interesting things happened in the fall of '90 after I already stepped down as dean. I was on sabbatical for fall semester of 1990-'91, and I took advantage of that fact by booking a Panama Canal cruise with my spouse. I had already had several conversations with Chancellor Tien who had talked to me about a possible appointment, but in parallel, David Gardner--

Requests from Chancellor Tien and President Gardner

[27B]

LaBerge: In 1990 both from Chancellor Tien and David Gardner.

Pister: Yes. So at any rate, both of these things were going on, talking with David about doing early academic planning for the tenth campus, which at that time, of course, was much further away, being 1990, although the president saw the importance of getting started on the planning. The budget crunch in California put that on the shelf, of course, until a couple of years ago.

LaBerge: What about Chancellor Tien?

Pister: I was going to say, I can't remember, I think we were somewhere off the coast of Mexico on our trip, when the radio shack of the ship called and said that I had a radio telephone message. I don't remember how I got to a telephone. But it was Chang-Lin calling me saying, now don't forget now, I'm really anxious for you to take the vice chancellor for advancement appointment. When I came back to the campus, the chair of the search committee, the late Arnie Leiman, who was a professor of psychology, a wonderful colleague who chaired the search committee, came up to my office and had a long talk with me about taking the job. I remember going down to University Hall, which must have been renamed by then, because Chancellor Tien was living in the old president's office, seventh floor in the corner, a room that I remember well because I had many meetings with David Saxon in that office over the years. Anyway, they both tried to persuade me to take the job. But at that time I was, I guess, pretty much committed to working with David. Then as I think I've already mentioned, at one point early in December, it turned out that Chancellor Robert Stevens at Santa Cruz had resigned, and David then shifted the whole thing and said he'd like me to go to Santa Cruz.

LaBerge: So in the meantime had you started the academic planning?

Pister: No, I never really did start because one event overtook the other. It was probably in November that I started talking to David about the planning job, and then in early December, I think it was, that Chancellor Stevens announced his intention to resign for the next year, the next June.

LaBerge: And that's all covered in your other oral history, I think.

Pister: The Santa Cruz part of it, yes. The discussions and all leading up to that I believe I can review that, and we can insert if it's not present. I think I did talk about that, though. It was not an easy transition, much more difficult for my wife than it was for me.

LaBerge: Well, you did mention too that David Gardner sort of convinced your wife to go.

Advisory Committee for Hong Kong University of Science and Technology

Pister: I was appointed to the overseas academic advisory committee for the School of Engineering of the newly commissioned, but yet unbuilt, Hong Kong University of Science and Technology.

LaBerge: We did not talk about that.

Pister: This happened sometime in the spring of 1990, I believe.

LaBerge: Who else was on that?

Pister: My colleague Ernie Kuh from Berkeley was a member of that advisory committee; Paul Jennings, who was professor of civil engineering at Caltech and later vice president and provost of Caltech, was a member of the committee. Henry Yang of Purdue was a member of the committee. The chairman of the committee was the rector of Imperial College London, a person by the name of Eric Ash. I should say Sir Eric Ash because he was a knight of the realm or whatever you call such people. He was not the kind of a person who expected you to call him sir, but he was Sir Eric Ash. Wonderful fellow--in fact Rita and I visited Eric and Claire Ash several years ago when we were in London and had a wonderful evening with them.

LaBerge: When you're on a committee like that, do you set up the curriculum? What do you do?

Pister: This was a very interesting opportunity because the Hong Kong University of Science and Technology was conceived at the time that Hong Kong was beginning to get ready for the transition to return to China. The Hong Kong Jockey Club, which was the organization that managed the race track in Hong Kong had a, my understanding, a whole pile of money, and they were worried about what might happen to that money when the transition took place. So they decided to underwrite the construction of a scientific and technical university in Hong Kong. The design and planning and construction of that new university took place at an absolutely incredible speed. You can get a dress suit made overnight in Hong Kong. [laughter] Well, they practically built a university overnight in Hong Kong. It was built out on a place called Clearwater Bay over on the Kowloon side.

We met for several years in downtown Hong Kong or Kowloon while the university was being constructed, but ultimately we moved. I was on this committee for five years and saw the university move from the planning stage through the actual operation with students on board. Our role was to advise the dean of engineering on the nature of the curriculum, the selection of faculty, the kind of the thrust they might want to follow. We each reported on our own disciplinary specialties and met with the people, the faculty and some students and administration of the university. We met usually for three days each time we went.

It was an English-language university, and many of the faculty were Chinese-born or Taiwan-born faculty members who had been educated in the United States and returned to the Hong Kong University to be in its founding faculty. The first senior officer there equivalent to the president was called pro vice chancellor I believe. His name escapes me at the moment, but he was professor of physics at UC San Diego and moved from there to

become president of San Francisco State before going over to Hong Kong University of Science and Technology. I found that to be a most interesting experience academically, not to mention the perquisites of having five visits to Hong Kong over those years and getting a lot better acquainted with a most remarkable city and people there.

Two other things in this period that I want to mention also. I may have touched on this, but let me put it in for completeness. In May or June of 1990, I received a call from the president's office asking if I would be willing to be part of a team to visit Armenia.

American University of Armenia

LaBerge: We haven't talked about Armenia. I mean, we have it written down, but we haven't covered it.

Pister: Let me at least introduce it here, and I'll speak a bit more about it because I think it deserves a session by itself. Following the very severe earthquake of 1989 in Armenia, an earthquake that totally devastated the city of Leninikon. One of my colleagues in civil engineering, Armen Der Kiureghian and a fellow graduate student from the 1948 period, Mike Agbabian, and a third UC person--Mike at the time was in private practice in southern California--a third, Steve Karmardian, who was a professor of management at UC Riverside. The three of them together, I think, had visited Armenia following the earthquake and seen the devastation that was wrought by the earthquake and the suffering of the people.

My introduction to this came when Armen der Kiureghian asked me if I thought the University of California might have any interest in helping establish an American-style university in Armenia. I said, "Well, the answer to that question would be found by a visit to President Gardner to see whether or not, because it would be something the regents would have to deal with." To their credit they visited David, and to David's great credit he decided to take on the responsibility of offering the experience and the resources of the University of California, the human resources, not the physical resources, to help them plan and initiate an American-style university in Armenia. So I was asked to join a task force that was headed by Vice President Bill Frazer at the end of June and early July to visit Yerevan and to make an assessment about the feasibility of establishing such a university and to help find UC's role in it. I think I'd like to stop there at this point, and I'd like to leave that open because--we just celebrated our tenth anniversary this last year, and I've remained a member of the board. I have a corporate office in the university that I'd like to talk about. I can do that in the 1990 section.

LaBerge: I have some other questions from 1990. These are just universitywide. But your comments on some of the different issues that came up. One of them being divestment from South Africa. How did you personally feel about, and how did it affect the engineering school or--?

Pister: That's certainly a useful and important question. The only recollection that I have of that is listening on the radio to the regents' meeting, I believe, and hearing the arguments. I don't know that it was televised, but it was certainly on the radio. My own feeling was it

was appropriate to divest, for the university to divest. I'm not aware of any impact in engineering.

LaBerge: Your students weren't any of the protestors.

Pister: I don't remember that being an issue in engineering. It's certainly not something that stuck with me if it did happen.

LaBerge: I'm thinking about some of the other issues we talked about in other interviews. You and I talked about the lab contracts and your feeling about whether UC should be involved. So we've done that. Did you have anything to do with the Keck telescope or the superconducting supercolliders?

Pister: No, I was not involved in those discussions. So I've only been at the periphery. We talked about the Keck telescope later, and I was involved later on with my research group. I believe I talked about that already.

LaBerge: How about, would you want to comment on the whole retirement controversy? David Gardner's?

Pister: That's already getting a little bit downstream from where we are.

LaBerge: Santa Cruz. Okay.

Pister: Well, we can do that when we talk about the 1990s.

Dean Karl S. Pister Endowment Fund

LaBerge: Okay.

Pister: Yes. I'd be happy to talk about that there because there are quite a few things in, still we have a decade to go yet which we haven't touched.

LaBerge: Quite a few years.

Pister: Certainly I want to say something about the end of my ten years as dean. My colleagues and friends held a retirement dinner for me in the Pauley Ballroom. There were hundreds of people there, and it was a very pleasant affair to be sure. I had a chance to say a few words and to thank people for all the support that I got. But the other thing, along with the retirement dinner, was the complete surprise to me that friends and colleagues had created what was called the Dean Karl S. Pister Endowment Fund, and certainly I was very grateful and very appreciative of that recognition. It was an endowment fund. I was given the opportunity to state the preference of the use of the income from the fund. I perhaps not surprisingly said it should be used to help our minority engineering programs for women and ethnic minorities, but that I wanted to give discretion to the dean to use the funds in other ways if that seemed to be more pressing. The last time I had a report on this fund, it's grown to something over $100,000 now. I certainly have a lot of gratitude for

all the people who, on top of everything else they were doing were willing to support that endowment.

There's one more thing that I should mention that was initiated in this fateful June 1990 period just before I gave my 1990 May engineering commencement speech, which I noted here was "Berkeley Engineering *quo vadis*?" where I drew heavily on Isaiah, I should add, particularly to connect the beating of "swords into plowshares" and--

LaBerge: Do you have a copy of that?

Pister: I do have a copy of the speech, right, yes. I was trying to draw the parallels between that period of history and present day because that was a time, that was the end of the Cold War, and we were talking about peace and not Cold War. So "swords into plowshares" was an apt metaphor to use, and I talked about the lion and the lamb side-by-side. That's still a challenge in our culture, isn't it? Anyway I'll deliver that speech.

But there is another thing I would like to put on the record and to talk more about it in a special session. I had another call from the president's office, and I think this was born of my participation in an all-university conference that David had called in San Diego, on faculty and graduate student affirmative action. I prepared a white paper for that conference for background reading, and as usual was somewhat outspoken at the conference. So my reward for that outspokenness was to be asked by the president if I would chair a task force to review the faculty reward system in the University of California. [laughter] That acceptance or acquiescence on my part led to a couple of years of activity that deserve, I think, a special session, because all sorts of interesting things happened as a result of accepting that appointment. I think perhaps I could finish this by trying to respond now to--

Accomplishments as Dean

Diversity Programs, CUES

LaBerge: The question about what you accomplished as dean. When you started, you had certain goals. What do you think you did accomplish?

Pister: I think it'd be easiest if you'd go over or perhaps you could explain what you're--

LaBerge: Okay. I'm holding a declaration that Karl was given at his retirement from the College of Engineering advisory board. It describes most of the things that you did. Many accomplishments during this period which include "building diversity in the engineering student body, faculty and staff."

Pister: Let's take these serially, okay, because that certainly was something that I did that I'm very pleased with and proud of. I took my cue here from Mike Heyman, the chancellor, because Mike right from the beginning made it very clear that one of his objectives was to

strive to diversify the faculty, staff and student body at Berkeley. Taking that along with, I still recall a phone call from Mac Laetsch who was vice chancellor for undergraduate affairs at the time--this would've been winter 1981 in the admissions cycle--saying, "You're not getting many underrepresented students in engineering. You've got to do something about that."

That really sensitized me, along with Mike's own commitment to this, to really get started, and I had the good fortune to have a staff member whose name was Mildred Wyatt. Mildred was a former MESA teacher. She was a chemist by her disciplinary background, but she was basically the director of our MESA program at Berkeley at the time. She was an African American lady and she knew her way around the minority community, and she worked with me to put together a proposal to a group called NACME, the National Action Council for Minorities in Engineering. We sent in this proposal, and I got a grant I think of $21,000 in 1981 which was the beginning of a program that ultimately led to the minority engineering program, which ultimately was superseded by the acronym CUES, which was the Center for Underrepresented Engineering Students. What I did was first build--the MESA program at Berkeley was strong in those days. An early director was Victor Cary. Victor was a MESA director when Mildred basically took on a more comprehensive staff job. But at any rate, we had a lot going in the preparation part of getting students to Berkeley, but nothing once they got here.

So the whole point of this new program was to provide the kind of experience that would maximize the chances that students would be retained and graduate. It's partly academic, partly process, using a model that was developed here at Berkeley in the PDP program by Uri Treisman. Getting students to work together in groups, to study in groups, something that was done in some groups but not others. It provided a lot of, what you might call, out-of-class support to students. My experience was and continued to be that when students dropped out, it was largely not for academic reasons but for reasons outside the classroom. They were alienated. They had family problems. They had personal problems and they needed someone they could turn to that cared about them. So I had a series of people in this CUES program, staff people, that were absolutely superb in dealing with, not only motivating the kids to keep them sharp academically, but to be present for them to help them outside of the class work.

Here I really want to mention two people. First Charles Tunstall. Charles was an African American man who was an absolutely superb role model for these young students. Charles unfortunately disappeared one day, and to this day nobody knows what happened to him. His car was parked out by the Cliff House in San Francisco. So we just don't know what happened to him.

LaBerge: Where did you find him, to start with?

Pister: I don't remember how we recruited Charles. He set a tremendous tone for us in this area, and then Toni Torres, a young woman who was a tiny lady, but who had the personality and the energy to make up for any small size that she had. Those two especially were absolutely critical to the success of our program for underrepresented students. I added then a person at the graduate level to deal with graduate student affirmative action and to deal with issues for women, to get more women into engineering. That person was, well, I had several people. At one time I had Sheila Humphreys who's still on the campus.

Sheila had been in the Women's Center at Berkeley, worked ably in this position, and then I brought Carla Trujillo who is still in that, in the same position in the College of Engineering.

The consequences of all that were such that we effectively over the decade doubled the number of women in engineering in the college and made significant increases in the numbers and in the retention and graduation rates of these targeted underrepresented groups in engineering. After leaving Berkeley and coming back to commencements from time to time, I saw the consequences of that in the composition of the graduate degrees that were being offered, the increase of students of color getting graduate degrees in the college. For that work I received a national recognition from the American Society for Engineering Education, the Vincent Bendix Award for minorities in engineering work. So that was certainly one of my major accomplishments in the college.

LaBerge: It's almost ten to three. Should we continue on the next time with these?

Pister: Well, maybe we can do one. What's the next one coming up?

Progressive Interdisciplinary Studies Center

LaBerge: The next one is sponsoring progressive interdisciplinary programs.

Pister: This is something I can deal with. The college had an interdisciplinary studies center. The office was located in the Bechtel Engineering Building. The college has an associate dean position to look over interdisciplinary programs, and I think there are three things I'd like to mention in connection with that IDS center.

[28A]

Pister: Here are the things that I recall with some pleasure in that IDS center. First of all, after much fighting with the chancellor's office and the Budget Committee, I'm sure I increased the FTE for the center. The reason the center needs FTEs is so that it can buy from departments the teaching workload of the faculty member to teach an interdisciplinary course, because no department chairman wants his faculty to go teach a course that's outside the department, for all kinds of crazy economy reasons. So I was able to make a modest increase in that unit's FTE.

The second thing I'd like to mention is I think I did a first in the College of Engineering when at one point I appointed a new dean for interdisciplinary studies, who was not from an engineering department. I appointed Allen Portis, who was a professor of physics, a colleague that I'd known for years at Berkeley for whom I had great respect. I thought that apart from the fact that he was a great person in dealing with people and had a strong background in physics after all, it was a symbolic message that I sent that this interdisciplinary studies center was truly interdisciplinary. I was very proud of that.

The third thing I would mention there is following Allen's term as the dean of interdisciplinary studies, I appointed Michael Carroll, who was a professor of mechanical

engineering, and Michael also did an excellent job. In fact, he did such a good job that Rice University stole him from me and made him dean of engineering at Rice University. So Mike had no intention of going into administration at all until I made him associate dean, and then he became visible on the national scene. I just saw Mike at the Faculty Club last week, as a matter of fact. He was visiting here. He's no longer dean at Rice, but he has an endowed chair, and he did a superb job as dean at Rice University, I have to say.

LaBerge: When they said they sponsored a progressive program, what does that mean, progressive interdisciplinary--?

Pister: I think I encouraged the center to go into new areas.

LaBerge: For instance.

Pister: Professional ethics, for example. We also located our writing course for engineers in the IDS center. I was very proud of our writing course. It was taught by professionals who had training in the teaching of writing from the English department, not that our tenure track faculty in English had the slightest interest in teaching people how to write. But there is a group of people in the Department of English that does take writing seriously, this kind of teaching, the elements of good writing. So it was a quality course and a number of departments adopted it as a graduation requirement. We brought in special lecturers in a whole variety of areas to bring together people from different disciplines.

Another good example is the program in applied science and technology, which is a graduate program now. It's a graduate group, but it had its start in the IDS center. I know, I just happened to see the latest catalog of the College of Engineering, and it's prominently featured as a graduate group. It was started largely through the efforts of a scientist up at Lawrence Berkeley Laboratory.

Establishment of Bioengineering Group with UCSF

Pister: Perhaps, I could add one more thing there that is really interdisciplinary. Early in the 1980s, I worked with the dean of the School of Medicine at UC San Francisco, who at that time was Julie [Julius] Krevans, who later became chancellor at San Francisco. Anyway, we were both deans, and what we did was sign an agreement, a memorandum of understanding that formally established a group that had been meeting informally for a number of years, we formally established a bioengineering group between UC San Francisco and UC Berkeley.

This group I note in passing, in my view really had its beginning back in the 1940s. I think it perhaps worth the time to just say a word about this because it's an anecdote that explains how things happen sometimes without the benefit or the need for a strategic plan [with a smile] [laughter]. It begins with professor of civil engineering, in fact one of my teachers and a long-time colleague, Howard Eberhart. Howard was working in the summer of 1944 over at Hamilton Field in Marin County. That was an army airfield at that time. They were doing studies on design and response of concrete pavements to

aircraft wheel loading for the army air force, because there was worry about the capability of our existing airfields to carry the heavier bomber loads, the heavier planes to carry heavy loads. In the course of that study, Howard was one of the research engineers. He was on the pavement at one time looking at some instrument, and a piece of heavy equipment came along and ran over the lower part of one of his legs and crushed his leg. So he had a below-the-knee amputation of one of his legs.

The doctor that worked with him, Verne Inman, was an orthopedic surgeon at UC San Francisco, and Howard basically took that accident as the beginning of a collaboration that was supported after the war by the Veteran's Administration to study the mechanics of motion of lower limb amputees. This whole area of biomechanics really started here on the third floor of the old engineering materials laboratory, now Davis Hall, with studies that showed the forces that were exerted by a person's foot when they push down and defined what we call the kinematics of motion. How does the hip, the knee, and ankle move in space and time as a person walks? This information in collaboration with Dr. Inman and his colleagues at UC San Francisco was the basis for the redesign of a whole new set of orthopedic devices for amputees. That early work, which was post 1945 or so, gradually developed into an informal group of people interested in the applications of engineering in medicine, a so called bioengineering group, which today now has flourished to such an extent that I believe a year or two ago, a formal Department of Bio-engineering was created in the university. It's the first department that has faculty from two sister campuses, UC San Francisco and UC Berkeley. The department is chaired by Tom Budinger, who is a professor in the Department of Electrical Engineering and Computer Sciences. So I'm very proud of the fact that Julie Krevans and I as deans formally established that group as a graduate group back in the early 1980s. I consider this again to be one of the good things that I did while I was dean. Julie and I have often talked about that in subsequent years.

LaBerge: You were chancellors at the same time too.

Pister: We were deans at the same time and chancellors at the same time. So maybe that'd be a point where we should stop.

Competitive Compensation for Engineering Faculty

[Interview 15: April 18, 2002] ## [29A]

LaBerge: Well, last time when we ended we were talking about your accomplishments as dean, and I have before me a paper that the College of Engineering gave, it's not the paper they gave to you, but they gave you a plaque. Is that right?

Pister: It was essentially, what would you call it, a resolution.

LaBerge: A resolution, what they considered your contributions. So we were going to continue with that.

Pister: Yes. This was my external advisory board that did this, the board that we talked about earlier on.

LaBerge: We've covered a couple, and the third one we were going to do, and I'm quoting now, "Promoting faculty excellence by securing competitive compensation"--and I know we talked about that a little bit but more--"and providing recognition for outstanding young professors."

Pister: Right. I think the most important thing here was the work that I was part of, during the end of President David Saxon's tenure. I'm going to start by simply stating that the problem of compensation for engineering faculty, and include at the same time faculty in a number of areas like the school of business administration, really got so far behind the market outside of the university in the practice fields, or research fields of engineering, that President Saxon became aware of the fact that there could be a serious exodus of our faculty because of the lack of a competitive salary for faculty. I remember at some point after the fact, David told me that well, he felt he had to do this to save the College of Engineering at Berkeley and the School of Business Administration at UCLA, which expressed a certain bias toward which academic units he favored. But I think he was correct at the time.

So I worked under Vice President Archie Kleingartner, with the help first of Budd Cheit in business administration when he was still dean, and then later Budd stepped in as interim vice president for business when Vice President [Baldwin] Lamson stepped out as vice president. So Budd started as dean and then went on as vice president. Budd and I worked very hard kind of behind the scenes with Archie to develop what we thought would have been a proper salary scale for business administration and engineering, a special salary scale based on the precedent that there was already a special salary scale for medicine and law in the university. So it wasn't breaking new ground there.

LaBerge: This was across the board for medicine and law, I mean, every campus?

Pister: Yes. Every campus had a special salary scale for medical faculty and for law faculty. So this was essentially adding to those earlier defined categories of special salary--a scale for business administration and for engineering. So we worked very hard, not only on establishing this scale but developing a protocol for moving people from the old scale to the new scale, which was a very complex kind of mapping that had to be done for every faculty member. Well, you can imagine there was a great deal of controversy about this. First of all, the Berkeley campus, expressing its view through the Budget Committee, and I must say indirectly from the chancellor himself, both of these parties were not in support of the idea.

LaBerge: Was the chancellor, Chancellor Bowker?

Pister: No, Chancellor Heyman at the time. There was considerable discussion on other campuses I know. I remember meeting with the deans of engineering across the system to talk about this because I think I was the senior dean of engineering at the time responsible for the University of California engineering deans' council. Of course, there was the question of whether or not computer science should be brought in, and computer science was brought in. In the case of Berkeley, computer science was already a part of

engineering, but on other campuses this was not necessarily the case. But it was deemed appropriate to bring computer science into this special salary deal.

Well, I am told, because I, of course, was not present at that time, that when the issue was discussed at the Council of Chancellors meeting with David Saxon presiding, there was still controversy, particularly some reluctance on the part of the Berkeley chancellor. But my grapevine sources tell me that at some point David Saxon simply said, "I'm going to do this." So he took the item to the Board of Regents, and I was asked to attend the board meeting--I was then still of course dean of engineering at the time--in the event that any testimony was needed. I think the meeting was at the old Laguna Heights--is that what it was called?--Laguna Center was the Extension home in San Francisco. The item was presented, and there was some discussion, and I guess Archie Kleingartner must have presented the item, or perhaps David did himself. I don't remember in those days who did what. I think normally David presented the items in those days. That changed with other presidents. I remember then that the chairman of the Budget Committee for Berkeley spoke.

LaBerge: Who was that?

Pister: He was the professor of chemistry, and I can't remember his name. But it would be interesting to find out because he gave an impassioned plea, speaking against the special scale, expressing a position that's, I think, fairly traditional at Berkeley that well, rather than have these special scales we ought to look at each case individually. When I was dean, I don't know how many times I heard that, because I had a fight later on in my career as dean over the above scale salary issue, special salary category it was called at Berkeley, above the numerical scale professoriate, and the same argument was used. We'll deal with that on a case by case basis. Well, his talk went on perhaps a little too long because at a certain point, I still remember, Regent Carter, who was a very dominant figure on the Board of Regents through most of his career, interrupted the speaker and simply said, "I've heard enough. I move the adoption of the special salary scale" and it just went like that. There was no more discussion. The regents voted for it, and that was that. I remember how relieved I was that the whole thing went through. Looking back on it now, it was absolutely critical that that scale was adopted, because it did save the Berkeley College of Engineering. We lost very few faculty during the decade of the eighties, and it certainly was connected to the increase in compensation for engineering faculty.

LaBerge: Had you lost people before that you know?

Pister: There were occasional losses, I can't recall now. There might have been one or two, but there were many temptations. I remember in fact one of my very distinguished colleagues from electrical engineering and computer sciences, who was then a younger faculty member and ultimately went on to become dean, was given an extremely attractive offer from the University of North Carolina, to take over a very important leadership position in engineering in the research triangle area in North Carolina.

LaBerge: Who was this?

Pister: That was David Hodges. I remember David turning the offer down, but it was so far above anything we could have given him at Berkeley.

LaBerge: What about yourself? Were you ever--

Pister: No, I was never. The issue of salary was never a significant issue for me at Berkeley. Well, obviously I was concerned as to whether or not my salary was appropriate compared to my colleagues. But was I getting a fair shake? I think generally I got a very fair shake in the personnel system at Berkeley. But I think along with colleagues, we all felt that Berkeley ought to be competitive with other institutions in the country surely, and we ought to have a reasonable compensation based on what the market would be for comparable experience in industry.

I remember before this special salary scale was adopted, the experience of having my Ph.D. students going out and getting substantially greater salary than I was making at the time. That happened long before the special salary scale was adopted. The salary, I think, for most Berkeley faculty is not the make or break issue for staying or leaving. Certainly, in my experience as dean that was the case. Many faculty, including myself, had attractive offers to go elsewhere, and they were not lured away by virtue of larger salaries.

LaBerge: Now I can guess the reason, but how about for the record, why don't you state what some of the reasons are?

Pister: Well, surely, the reasons, I think, are very clear. The most important reason, I think two reasons are the quality of one's colleagues, one's faculty colleagues; the second, the quality of the graduate students; and I wouldn't ignore the undergraduates because many of them became graduate students. But certainly, the quality of the students along with the quality of colleagues. I think those are the dominant factors. The academic ambiance at Berkeley, I think, is a third criterion that I would list. The freedom of an individual faculty member in the University of California and particularly in the Berkeley culture is dramatically better than it is in many institutions. I think those things all together, and certainly, the Bay Area is an attractant. For all these reasons, I think people often were motivated to stay here and not to move to a place that might have given them more salary or more authority at another place, where these other factors were not nearly at the level that they would be at Berkeley.

Encouragement of Young Faculty

LaBerge: How about providing recognition for outstanding young professors?

Pister: Well, looking back I don't remember anything special that was done there. I may have spoken about this before. But one of the things that I tried to do was to encourage--working with department chairmen--the dean is ill advised to jump over department chairmen in talking or working with faculty. I certainly was as supportive as I possibly could be in encouraging the nomination of young faculty for national awards of different kinds. I remember best the early days of what was called the Presidential Young Investigator program of the National Science Foundation. That program recognized outstanding young faculty below tenure. I think it might have gone up to people who just gained tenure. But it recognized people whose record of accomplishment early in their career gave strong evidence of increased potential for contributions both in research as

well as teaching. I remember the first few years, I was on the selection panel for the first cohort of those students in the National Science Foundation. I remember very well that Berkeley did exceptionally well in terms of the number of awards that we received, and that continued on during the remainder of the years that I was dean. The program was renamed later on to give it a new name, but Berkeley continued to do well. I must say I'm pleased that my own son Kris received one of those awards early in his career. So that was one way in which I worked with department chairs.

A second way was the creation of the Packard Fellowship program. David Packard, in his extreme generosity, endowed a program to recognize, I think, twenty a year of Packard Fellows with a very handsome annual stipend and, of course, the attendant honor that went with receiving one of the prestigious awards. I recall again, we were given the opportunity to be one of the founding campuses. I say there were twenty campuses selected originally, I believe, and Berkeley was one of them, and we received an award the first year of the program. I was very pleased that we were able to take advantage of that program. Again, I think we've done very well in subsequent years in that program. The dean's job in things like that is to be sure that there's an awareness of the opportunity and to work with the department chairs and usually to write a letter of support, which I could do by virtue of my personal knowledge of the individual or my assessment of the evidence that was presented in the case to add a little more momentum.

LaBerge: In those cases, I mean I know you had contact with faculty, but for instance when you had a new professor, would you ever go visit a class or what kinds of those contacts did you have?

Pister: Yes, that, I think, bears a comment. My modus operandi there was to visit each new faculty member in his or her office during their first year that they were present on the campus. So I went around and simply introduced myself, learned something about the individual, what their field of research was, what their interests were, if they had any problems in adjusting to the Berkeley culture, and just generally making myself available and getting to know the faculty. I found that to be a very good thing to go and meet them on their own turf, so to speak. I think that process was very much appreciated by young faculty. I remember my own experience as a young faculty member, a kind of looking at the dean as some distant old figure that was very unapproachable.

Indeed, I remember during the trying moments in my own career when I think as I mentioned I was turned down for tenure on the first round, and then subsequently my chairman and dean went back and appealed the case to President Sproul and I was awarded tenure. So the consequence of that, I remember the dean--it was Mike O'Brien at the time--Mike, calling me into his office to--it turned out, he called me in just to see if I was okay, and did I have everything going for me that I needed because he said, "Your colleagues think very highly of you, and they don't want to lose you. So is everything okay?" I remember going to that meeting absolutely scared to death of having to meet this guy called the dean of the College of Engineering who was such a distant figure.

I often thought about that subsequently when I was dean, because it just seemed so unreal that any faculty member would be apprehensive about talking to me. Certainly I was probably about the same age as Mike O'Brien when I started being dean, because he retired quite early from the university. I was in my middle and late fifties, and he must have been about the same. But he seemed so old and so unapproachable. I must say, too,

just in his defense, later on when I became dean, Mike from time to time would come in and visit with me and I always had wonderful visits with him. I remember him saying once when I was complaining about my problems as dean he said, "Well, the trouble is, you don't have the authority that I had." I think I might have mentioned this. When O'Brien was dean, he was dean of the College of Engineering and chairman of the Department of Engineering. There was only a single department of engineering in his tenure. There was a change at the end. So he was both dean and department chair. You've got everything then because the department chairman really has the ability to do all of the day-to-day work of assigning resources and all that. The dean essentially is the senior leader of the faculty of the college. So he had it all in his pocket, and he jokingly said, "Well, I had an easier time because of that." In fact it was ultimately that conflict of interest, I would say, that led to the reorganization of the College of Engineering and the creation of the departments within the college. Before that the single Department of Engineering had divisions of specialties in engineering that was--

LaBerge: So civil engineering was a division.

Pister: Under O'Brien it was the Division of Civil Engineering and Irrigation, and then irrigation migrated to Davis, and it was renamed the Department of Civil Engineering. I might add now it's the Department of Civil and Environmental Engineering. It's been renamed since I left for Santa Cruz.

The other thing I would mention in terms of the young faculty that I did, it was not a major thing, but I'm sure it created some relationships that ultimately led to some good, but it's difficult to measure these things. I initiated a series of noon meetings, lunches at the Faculty Club, where I would bring a group of young faculty together with a couple of senior faculty. There'd be not more than six or eight people at lunch, so that I tried again to bring in all the new faculty. I did this across the college. I didn't want people from the same area to get together, rather to create more interdisciplinary awareness, friendships. I think that was a useful step to have taken.

LaBerge: I know Charles Faulhaber for a while did that in The Bancroft Library, because we have lots of little pockets; you don't know people in other areas.

Pister: That's right. I'll talk about this later when we talk about the senate. The Academic Senate structure is, I think, an excellent vehicle for breaking down those barriers and providing the opportunity to know one's colleagues in other disciplines on campus.

Social Activities

LaBerge: What about, this isn't in this, but it kind of leads to it. What kind of other social activities were there in the college, or weren't there?

Pister: That's an interesting question. The department over my experience with its history has never been very big on having departmentally focused social functions. In my early years here, say in the late forties and early fifties, the younger faculty members often would

have social functions. We'd meet with our wives and have dinners and things like that. There was nothing done as a department. I can only remember one occasion in that early period where there was anything done at the college level. I remember Dean O'Brien had some kind of a social function at his home once that we attended. But I don't remember who was invited to that. It certainly wouldn't have been the whole college. It was some smaller group. So that it was more or less just small groups of faculty within the department--

LaBerge: Sort of self-chosen.

Pister: Sort of self-chosen. Right. Earlier on there, I was part of a group that was very much a consequence of our navy service. There were four or five of us that had been in the navy together, and that was kind of in the late forties--understandably still a strong bond for us --so that we met as a group. We often in those days went to the Officers' Club at Treasure Island or at Alameda Naval Air Station, both of which had very nice clubs with good food and service and typically on the weekends would have an orchestra and one could dance there. So we frequently went dinner dancing and it would always be the navy guys. We were all in the Civil Engineer Corps understandably since we were civil engineers. There were four or five of us that used to do that fairly regularly. We have very fond memories of the Old Fleet Admiral Nimitz Club at Treasure Island which no longer exists unfortunately, but certainly for a number of years was very much a part of our social life. It was inexpensive relative to going out on the economy, to use a military term. So it was attractive to us.

The other activity it might be useful here too to mention in terms of social life, this was pretty much just the members of the department, the male members of the department, since there were no women professors at that period of history and very few women students in our early days. We used to have very well attended social events that would bring together the civil engineering faculty and civil engineering students, represented through what is called the student chapter of the American Society of Civil Engineers. The events that are most noteworthy that I still have some fairly vivid memories of would be the annual football game in the fall when the faculty, and I think ultimately we allowed graduate students to play on the faculty side--

LaBerge: Because you needed them [laughing].

Pister: Well, many of us were in our late twenties or early thirties in those days. So we weren't--we hadn't passed the prime of life yet. [laughter] In fact, we had one member of our faculty, Erm Pearson, had played football for the University of Washington, and he was maybe a 250-pound guy, a great fellow. We had a pretty solid group of faculty. We'd play football in the fall with the students, and we often beat the students. We were a very well-organized team. In the spring we had the annual softball game we played against the students, and typically these events were held out at Lake Anza at Tilden Park. I guess it goes without saying that they were typically catalyzed by a substantial amount of beer drinking--

LaBerge: I would think so.

Pister: Along the way; so that by the time the games ended or even during their progress people were fairly loose. I have really very fond memories of those times when it brought the faculty together, young faculty of course, together and with the students.

The other thing was the annual student chapter dinner, which was kind of a very significant social event that honored the civil engineering graduating class each year. In those early years too, this was very well attended by faculty, particularly the young faculty, but many of the senior faculty came as well. Those affairs were always a lot of fun, and at a certain point in the history of that event after World War II, the students initiated some kind of a distinguished faculty award, and the symbol of the award was a toilet seat. [laughter]

[29B]

LaBerge: Okay. You never received it. Were you hurt?

Pister: No. [laughter] No, that wasn't it at all. One of the reasons that probably I didn't receive it was my teaching assignments. At the beginning I taught freshman students surveying. But most of my career was teaching a junior level course, which civil engineers took, and then teaching graduate courses to engineering students on the other. So that I didn't have contact with students in civil engineering in their senior year. It was in those senior courses where our faculty really, I would say, bonded with the students more, and so the people that taught senior courses typically were the ones that were the victims or the targets of the annual awards. So I kind of escaped that.

Anyway, those events that I mentioned were, I think, in retrospect events that were a sign of that period of history. It began with the veterans coming back after World War II, a predominantly young faculty that was just hired after the war. It over the years has pretty much faded. I don't think there's an annual athletic event of any kind any more. There's still a picnic, I believe, and I haven't been to a student banquet for many years. So I simply don't know. I've been away too long to know whether or not that tradition has really been kept alive. But at the time--you mentioned social life. The wives were not present but it was certainly a major social event for the faculty.

LaBerge: When I was talking to Mrs. [Kenneth] Pitzer, she told me in the College of Chemistry how close it was and how much they did interact and have the students over to their houses. Then as the school got bigger, too, it made it much harder to do that.

Pister: It was very different at the University of Illinois when we were there. There were departmental functions, and you were expected to come, and the departmental functions involved spouses as well. Maybe I mentioned this. I remember when my wife came back--I was an instructor, but a graduate student as well--and being invited to the monthly meeting of the departmental wives. I remember her going to the first meeting and being surprised that you were supposed to bring your knitting and darning--so she wasn't terribly attracted to that side of life at Illinois. But that reflects the fact that Illinois was a much more isolated environment, a small town in the middle of nowhere, and university life was essentially the life of the area.

At a certain point my wife and I, long before I became dean made a decision: "Look, we don't want our social life to depend just on the University of California and the

department." I don't think necessarily we withdrew, but perhaps others felt the same way. We stopped going to functions that were just essentially civil engineering faculty and wives functions. We made a decision to make our social life essentially more part of our geographic community and our friends that we made when we moved out to Lafayette. In a certain period in the late fifties and sixties, our social life was very much connected to our life in our parish, the parish of Saint Perpetua in Lafayette. Perhaps I think I ought to reserve time to talk more about that at another point because there was a period around Vatican II and the student movements here that deserves special mention because of the really profound impact that it had on many of us, particularly in my own life.

LaBerge: We have that whole FSM section we haven't covered.

Pister: That would be a good place to talk about that because I wrote a piece about that, and we can come back to that.

LaBerge: So shall we go on?

Pister: Let's go on.

Open Communication and Publications

LaBerge: Okay. "Fostering open communication and mutual recognition between administration, students, faculty, alumni and industry." Some of it you've talked about even by going to visit young faculty and--

Pister: That's a lot to cover, but let me respond to that.

LaBerge: Even the open communication, the fact that we hope your faculty weren't afraid to come to your office to see you.

Pister: No, well, I don't, I don't remember any hesitation there. I had a couple of faculty members that made an annual visit, and the annual visit was pretty much the same every year.

LaBerge: Do you want to talk about that? Is that a good anecdote? You don't have to name names, or you could.

Pister: One dear colleague who is deceased now, a lovely man. He looked exactly like Professor Einstein, and he had every physical resemblance of the stereotypical professor. I'm sure I can name him because I loved the man, but he caused a lot of problems in the college. His name was Paul Lieber. Paul was really a very brilliant person, but somewhere along the way something went wrong, in my view, in his life because he just had the sense that everyone was against him. In fact, he had a serious disagreement with one of his colleagues that really hurt both of them. It began ultimately to affect his own teaching and his work with students.

But Paul used to come in on a regular annual basis and sit down and tell me about all of these problems. But it would always start by going back over his life, and he would invariably tell me about the time that he met Einstein, and Einstein essentially patted him on the head and encouraged him. I don't know how many times I heard that story, and you can see that twenty some years later I still remember this. It was a tragedy because Paul was such a decent human being. I used to talk to him about philosophy outside of, well, sometimes in these meetings, but often other times. He was a very well read person, tremendous insights into things. But he just went off the track, so that his departmental colleagues couldn't let him teach the regular courses any more, because he simply couldn't bring himself to accept what might have been thought to be the standard approach to teaching or the content of a given course.

Anyway, I cite that as an anecdote or an example of communication and openness that perhaps is a bit of an exaggeration to say, that that's one of the prices that you pay if you want to be open. You can't say, "Well, I'll be open except to you." I didn't have open office hours, announced office hours for students or faculty to come, but certainly my secretary and my assistant Billie Greene screened people that wanted to come talk to me as dean, but I did have a regular meeting with students leaders. They would come in. I went to student events. I was particularly anxious to be present at events of the Society of Women Engineers because I wanted to encourage the participation of women in engineering. There was another excellent group, Women in Computer Science and Engineering, WICSE, that I gave support to.

There were two alumnae of computer science that made initially some, I would say, some fairly aggressive approaches to me, essentially trying to get me to see the importance of being out in front on women's issues in engineering. At first I was a bit offended by their aggressiveness, but I learned to turn that around in the right direction. Ultimately, we became very good friends and worked together to channel their properly aggressive spirit in this into productive ways to make engineering more hospitable for women and more attractive to women.

LaBerge: How did you do that?

Pister: By, I can't go down the list, but certainly the first thing that comes to mind is I created a position in the graduate dean's office for women in engineering. I basically tried to set a tone in the college that it was important to bring women into an engineering program at both the undergraduate and graduate level. Essentially it's just keeping the issue alive and sensitizing people to the importance of this. So okay, we were talking about openness, and I earlier mentioned the matter of having regular meetings with the department chairmen and deans and so that--

LaBerge: Executive meetings, once a week, once a month.

Pister: At the beginning these meetings were weekly, and later on the frequency dropped off. The major thing there was I just wanted to be sure that my deans certainly and the department chairmen understood what the problems were in the college, actions that I was proposing to take. I would ask them for advice. These were not regulatory bodies of any kind, but rather advisory bodies. I remember well, at one point, when we were discussing allocation of resources, I asked a task group of the department chairs to meet to discuss whether or not we ought to have a formula for the allocation of resources in the

college. I remember very well the group coming back and reporting back to me, "No, we don't want a formula. That's your job. We want you to use your discretion in assigning resources," and indeed that's what we did.

LaBerge: That sounds like a vote of confidence.

Pister: Well, I hope so. But the only complaint that I remember ever getting was the electrical engineering and computer sciences chair, no matter who he was, felt that they didn't get enough resources, because they were the dominant department in those days although I did help them to get additional faculty resources and helped them in their building programs, as we'll talk about. They certainly were impacted. But I couldn't make it, as I told them often, a College of Electrical Engineering and Computer Sciences because I gave them the same message I got from the chancellor. When I went to the chancellor and complained that I wasn't getting enough resources for engineering, he said, "I'm not going to make this the Berkeley Institute of Technology. You're just going to have to accept that." Then I would go to Errol Mauchlan who worked on the Berkeley budget when I got to know Errol better, and I would go to Errol and say, "Look, chemistry is getting this and this and this. Why aren't we getting this?" Errol invariably would come back with a set of figures that would show me that engineering was doing just as well as chemistry. He was so good at that.

On the strength of that, when I became chancellor at Santa Cruz, Errol had retired here, and I brought him down after his retirement to be my budget officer, and he did a splendid job for me, as I think I might have talked about this earlier. The budget situation at Santa Cruz was such a chaotic thing, and Errol straightened it out and did a marvelous job during the really tough time in the nineties when we had to cut the budget so dramatically.

Anyway, so communication on issues, I tried to make everything as open as possible so that people would not think that I was holding back information that they should have. The other thing, we had an engineering newsletter that went out weekly and a quarterly publication called *Matrix* that gave news about the college, and then an annual publication called *Forefront* that was developed to basically describe the college's research programs and contributions in research and to connect our research with our industrial sponsors.

LaBerge: Were those two publications something you instituted?

Pister: The *Forefront* publication I did, and then we put on an annual directory of faculty research as well, that listed all the faculty, listed their publications, their areas of interest and all. I don't think I initiated *Matrix,* but I moved it along, nor did I initiate *Engineering News*. The *Forefront* we did start, although I'm not entirely certain.

I think it's important, at a certain point I hired a director of publications, Karen Holtermann, who was a daughter of one of my close colleagues in engineering, Professor Alex Scordelis. So I knew Karen when she was just a little baby, although not well. She came in as director of publications, and she's now, I don't know her exact title. She moved to the chancellor's office. She's director of university communications for the campus. She was a very capable person and really put our publications in good shape.

So that, communicating with the faculty and students and staff internally, but also communicating to our alumni and to our industrial sponsors, that was an important step. Then I think I mentioned already the industrial liaison program, which we developed, based on my predecessor's initiation of a program. We took that to a different level of the number of companies involved, the amount of support, the kind of program that was involved each year to showcase our faculty and graduate student research.

Alumni Groups

Pister The other thing that I did, and again I take no credit except to continue and to strengthen it, was to really be very present to our Engineering Alumni Society. I was an ex-officio member of the board of directors of the society, and I attended all of the board meetings and attended all the Engineering Alumni Association functions. That gave me a chance to be present to college graduates from back into the twenties as well as recent grads; so that I think it was very important to be able to speak to them each time and to bring them up to date on what was happening, to answer their questions. I still remember particularly at southern California going to events and I would be asked the question, why are there so many Orientals in engineering? I would have to very carefully and patiently correct them and say that these are Chinese American, Japanese American, Korean American students, for the most part who are citizens of the United States and are very much attracted to engineering and are very successful in engineering. That was one of the very early issues that was a problem for me to deal with.

The other thing in terms of communication was to again be present and an active participant in the Berkeley Engineering Foundation steering committee. The Berkeley Engineering Foundation was created about the time I became dean. I think I mentioned earlier the first director of that program, Marily Howekamp, was a person that was hired just before I became dean. The purpose of the steering committee was to advise me, and to not only advise but then to implement policies concerned with private gift giving for the College of Engineering. That steering committee was absolutely vital to me to create the kind of structure and the kind of procedures that were necessary to supplement the state budget for engineering, which was entirely inadequate as early as the 1980s. Berkeley Engineering Fund people were essentially the leaders in the volunteer organizations that did the fundraising for me, from individuals and to a certain extent corporations. I should mention the names. I think the first chairman of the Berkeley Engineering Fund--I said foundation, it was Berkeley Engineering Fund.

LaBerge: Fund, okay.

Pister: There's only one foundation. It's the UC Berkeley Foundation. The Berkeley Engineering Fund is authorized by the foundation or by the campus, the chancellor, to receive funds to be deposited in regents' accounts. But anyway, the Berkeley Engineering Fund, I think the founding chairman of that was Ed Garbarini, who was a senior member of the Bechtel Group. He was a marvelous supporter for us in the early years. He was succeeded by Lou Oppenheim. Lou was the chief engineer at Kaiser Engineers, retired. People of that caliber and that experience populated the Berkeley Engineering Fund steering committee. So I had really wonderful people with, not only a lot of good

common sense and experience, but a lot of excellent contacts. I was never able to reach the target, which has subsequently been reached, but I hoped to reach a target of getting a million dollars a year in annual giving. I think I got up to $800,000 while I was dean, and now I'm pleased that the college has gone over a million dollars in their annual contributions to the dean for unrestricted use of the dean.

LaBerge: How much connection between the fund and the alumni society?

Pister: Well, the alumni society really provided, I would say, the cadre for the Berkeley Engineering Fund organization. They populated the different committees, the Sproul Associates or whatever, that I needed to go out to do the actual solicitation. We had a wonderful organization, and it was largely members of the alumni society. In other words, you graduate and become an alumnus, and you join the Engineering Alumni Society. That's your first connection, and then a certain number of those people go on to be incorporated into the Berkeley Engineering Fund. All through that it was a question, I think, of simply being present, getting to know people, and communicating with them. I guess I hadn't thought too much about this, but evidently I was viewed as a successful communicator. They felt that they knew who the dean was, what the dean stood for, and what the dean was trying to do in the college, and I really enjoyed tremendous support from the alumni society and from the Berkeley Engineering Fund volunteers.

It's something that I quickly became aware of, that as a faculty member I was totally insulated and isolated from this experience. I think I said until I became dean I had not attended a single meeting of the Engineering Alumni Society because I lived in a different world. One of the things that I tried to do when I became dean and saw this part of the world that had been obscured to me was to try to get more faculty members sensitized to the alumni of our college, because the alumni had a tremendous sense of loyalty to the college that I think most faculty including myself were totally unaware of. Because of that loyalty, the college has enjoyed a huge amount of support from individuals, from the corporations and businesses that our alumni have been involved in, and it's been a wonderful experience. That was true not only in the Bay Area where there was a huge number of our alumni. It was true in southern California. It was true in Chicago. It was true in New York City and every place where we went, and I think I've already mentioned when I went to Taiwan or to Hong Kong to Singapore, to Tokyo, I ran into masses of engineering alumni from our college that were still very much attached to Berkeley.

LaBerge: Well, I'd say that's an example of your openness that you could, you hadn't been attached to the alumni, but you were able to embrace them and--

Pister: That's right. I think that's really one of the things that I feel was a major accomplishment that I hadn't recognized the importance of or what it could do for the college and what it did for me. It just opened up a whole new world for me.

More on Industrial Liaison

LaBerge: We've been talking about stimulating an active growing liaison between the college and industry, which you've talked about a little bit, which established ongoing sharing of research and resources.

Pister: Right. I think it would be good to include that, and then we can finish for today. The major point there would be that I simply had the opportunity to continue to build the program that Ernie Kuh, my predecessor, started. The college over the years certainly enjoyed through its faculty contacts a substantial amount of interaction with industry. That goes right back to the earliest years of the college. The first dean of the College of Engineering, Charles Derleth, was a major figure in the design of the Bay Bridge and the Carquinez Bridge. Raymond Davis, after whom Davis Hall is named, was a major figure in the development of cement and concrete block, the use of concrete in construction in the United States and in the world for that matter. I remember R.E. Davis had a million-mile plaque from United Airlines as early as the 1950s, I think. So those are just a couple of early indications of the kind of interaction of college faculty with industry.

So what happened in the late 1970s was that Dean Kuh saw the necessity and the opportunity of formalizing this more and bringing a focus on the interaction of faculty with industry by creating what was termed the industrial liaison program. I remember when this was presented to me as a faculty member in a department meeting. I just couldn't see the sense of it. I think I spoke against it, as a matter of fact, and for the record I also was absolutely incensed by the idea that the Bechtel Center should be built and funded entirely through private funds. As a faculty member at the time when asked to contribute to the Bechtel Center, I steadfastly refused to give even five cents to the Bechtel Center. I might add that both my understanding of the importance of the industrial liaison program as well as private giving for capital construction changed abruptly after I became dean.

[30A]

LaBerge: Industrial liaison program.

Pister: Yes, so going back to the industrial liaison program. I just simply had to build on what had been started a year or two before I became dean. What does it mean to build the industrial liaison program? Well, we built that essentially on the foundation of the many faculty contacts with companies and people in industry. A faculty member doesn't establish relationship with a company. Well, one establishes a relationship with individuals in a company. I think both the quality and scope of that relationship was most advanced in electrical engineering, in the electrical engineering side of the Department of Electrical Engineering and Computer Sciences. The computer scientists had only joined the department in 1974, as I remember. So the double-E folks had been at this longer than the computer scientists had. The opportunities in computer science were growing at a rapid rate.

In the other departments of the college, there were other opportunities, but it was much less dense than it was in EE and CS. So it was essentially just a question of organizing and formalizing and bringing much more of an awareness both to the faculty and to

business and industry in the United States, that here's a College of Engineering with these intellectual resources, these research interests and graduate students and faculty. We are anxious to work with you to deal with problems that are important and critical to you. As I mentioned, we did this through the annual meeting of the college, a two-day meeting, where we showcased what we were doing. We did this through the publications I mentioned already, *Forefront* and the research review for the faculty each year. I believe, at least one department, EECS did a lot of their work online as well. They made this available, this was pre-Internet. One could access this through email at that time, but ultimately it became Internet-based. It was just cultivation and amplification of what had been going on earlier at perhaps a slower pace.

LaBerge: It makes such sense in your field.

Pister: Sure. Absolutely, and we weren't the only university in the country doing this, of course. MIT had been doing this for years. In a sense, we developed a different model from the MIT model. The resources that came in this way went essentially directly to the faculty, to the department, although the college did have a modest amount of resources that came directly to the college. For example, I received grants or gifts, I should say, from the General Motors Foundation, and other corporate foundations sometimes gave money directly to the dean for allocation. But the majority of the money, the resources would flow to the departments, and I think at one point we had about 300 companies that were members of the industrial liaison program.

We had two kinds of members. You could be a college member at one level or a department member at a lower level. I don't think those were very discriminating kinds of memberships in the sense that you could get about the same information, the same access from one that you could from another. It was largely a measure of how big the corporation was or how committed they were to Berkeley. The difference in membership level, as I remember, wasn't that large, three or four times as much to belong to the college as the departmental member.

That whole thrust of the industrial liaison program was, I think, critical to the success that we had ultimately for electrical engineering in putting a fifth floor on Cory Hall. That happened during my term. The department had planned for some time to build a fifth floor that would provide a state of the art microelectronics fabrication facility, in other words to fabricate chips, and to provide additional space for graduate student research and for faculty. That project was funded by a combination of state funds and private donations from corporate sponsors.

Ultimately, I would say the same thing, the success we had in raising funds for the computer science building depended to a certain extent on our earlier success in bringing the quality and the breadth of intellectual and material resources of the college to the attention of companies in the United States and abroad for that matter, particularly in Japan and to a lesser extent in Germany. I don't remember, I think I've talked about Soda Hall.

LaBerge: Oh, you have. You have.

Pister: Yes. As I mentioned early on, the Japanese companies were the first to support us. Then we received money from Siemans in Germany, I remember, and it was a long time coming to get American corporate support. I think that pretty well takes care of this.

LaBerge: The next one, we've talked about. "Inspiring a personal, dedicated leadership to highly successful greater alumni family and programs, which include the Berkeley Engineering Fund and the Engineering Alumni Society."

Pister: Yes, I think I've talked about that one.

LaBerge: We've covered that. So there really is just one more. "Being the leading spirit and the driving force in obtaining private funding to build a new engineering building for computer science and a lasting endowment for the college." So the only other thing is the endowment really to talk about.

Pister: I talked about Soda Hall and the endowment. I believe I've talked about several examples of that. I talked about Mr. and Mrs. Kribbs and getting the first unrestricted gift--

LaBerge: I think so.

Pister: On the oil and gas revenue from their wellheads in Midland, Texas. I think I did. I don't remember what the growth of our endowment was over that period, but it was substantial. The other part of that, and you'll have to correct me if I'm wrong, was the pursuit of endowed chairs.

LaBerge: We talked about the Roy Carlson chair. But also the first chair--

Pister: The first chair, the Nishkian chair, I talked about that, and the fact that I think we went from one to thirteen chairs during my ten years as dean. Each one was a very different experience. The impact of those chairs over the years would have to be substantial because it provides the flexibility to the chair holder to do lots of things that don't require grant writing and all kinds of non-productive things, to get the income from the chair, not to mention the fact that there's a substantial prestige factor being a chair holder that helps to retain people at Berkeley.

LaBerge: So should, you want to leave it there?

Pister: Yes. I'm just trying to think, what else? I think I mentioned, did I not, when I was appointed dean when I saw Provost Maslach's reaction?

LaBerge: Yes, he genuflected, but also said you were going to have get chairs.

Pister: Chairs. Yes. So we've covered that. Good. So then I think, Germaine, we should call it day.

UCB Deans of Engineering, April 1988: (left to right) Karl Pister, Everett Howe, Mike O'Brien, George Maslach, Ernie Kuh, Bob Wiegel

IX. UNIVERSITYWIDE TASK FORCE ON FACULTY REWARDS

All University Conference on Affirmative Action, 1990

[Interview 16: April 22, 2002] ## [31A]

LaBerge: Well, today we were going to talk about the Committee on Faculty Rewards. I have before me the report--it's called the Report of the Universitywide Task Force on Faculty Rewards, and I believe you were the chairman of that committee.

Pister: Right. Let me put this in a chronological context. On the first of July of 1990, I had stepped down as dean of the College of Engineering at Berkeley and commenced a sabbatical year. I had intended to use that sabbatical year to make a decision as to what I was going to do next, whether I would really get back into teaching and research again or perhaps try to find another academic administrative position in the university.

While in the process of entertaining that question, actually this happened in June before I had stepped down, two very important interventions occurred. One was the call that I received from the president's office asking if I would chair a universitywide task force on the faculty reward system. The second was an invitation to accompany Bill Frazer, who was provost and senior vice president of academic affairs, joining him as part of a team to go to Yerevan, Armenia, to investigate the feasibility of the University of California being the sponsor of a new American-style University in Armenia.

So I'd like to talk about both of those things, but let me first start with the task force on the faculty reward system. I believe the idea of creating the task force to examine the reward system was a consequence of an All-University Conference that was held in the spring of 1990. It was an All-University Conference on affirmative action for faculty and graduate students in the University of California.

LaBerge: Had you attended the conference?

Pister: I had attended the conference. In fact, I had prepared a white paper that was used for background material for the conference, a white paper on affirmative action in the

university, particularly the role of faculty in implementing affirmative action. As a consequence of that conference, in which I was perhaps a bit outspoken from time to time, I received my just reward by being asked by the president's office if I would chair a task force. [Laughter] The charge to the committee was to review university academic personnel policy on the criteria for advancement and to review not only the criteria, but the practices in the implementation of the policy, to determine if the reward structure in the professorial series was consistent with the mission of the university. The composition of the task force was quite interesting. I'd like to take a moment just to reflect on that.

Composition of Task Force

LaBerge: Did you have anything to do with the composition?

Pister: No. I had nothing to do with the composition actually. Looking at it now going down the list: Carol Cartwright at the time was vice chancellor for academic affairs at Davis. Carol's now a long-time president of Kent State University. Marjorie Caserio--whom I knew from my time on the Academic Council--was chairman of the Academic Council following that period after I had been chair--had been a professor of chemistry at Irvine. She went to UC San Diego as vice chancellor. So Marjorie was there. Carlos Cortés from history at Riverside, a very articulate and sometimes outspoken supporter of affirmative action. Charles Li from the Santa Barbara campus who was dean of the graduate division and a very well-known physicist from Irvine. Alexei Maradudin who had also been a chair of the Academic Council was a physicist from Irvine.

Then there was a professor of biology from Santa Cruz, Cliff Poodry, whom I got to know much better when I went to Santa Cruz subsequently. Cliff is a Seneca Iroquois Native American, a wonderfully insightful, sensitive person. Susan Prager who was at the time dean of the law school at Los Angeles. Mel Ramey, who was the only African American member of the task force, a professor of civil engineering at Davis. I had known Mel before and got to know him much better because after I'd become chancellor at Santa Cruz, his wife Fel Ramey was an American Council on Education fellow with me at Santa Cruz. So we had a lot of contact.

There was Dick Sisson who was a vice chancellor for faculty relations at UCLA. Dick went on to be provost of Ohio State University. Mel Webber, long-time colleague of mine from Berkeley, a professor of city and regional planning. I see I left out Jennifer LaVail who was professor of anatomy at UC San Francisco. So you can see the composition of this committee, the geographic distribution as well as the qualifications of the people, who they were and what they went on to become subsequently. It was a very, very thoughtful group of people.

LaBerge: Right. Who was responsible for choosing, do you think?

Pister: Since this was an administrative committee reporting to the president, it was probably done in Vice President Frazer's office, probably with consultation of campuses.

LaBerge: Because it sounds like every campus was represented.

Pister: Oh, it was. Yes. Also, there was a balance of gender and ethnicity. The task force met five times during that year of 1990-91, and as I say in the letter of transmittal, the deliberations really were of such a quality that I was really struck by the seriousness of purpose that this task force had. Over and over again there was a concern expressed about the way in which the assessment of what the academic personnel manual calls--I'm quoting--"the proper work of faculty members." "To what extent was the way in which the proper work of faculty members assessed, to what extent was it assessed in a way that was fully supportive of the broad mission of the university, teaching, research and service?" I'll jump to the conclusion. I say in my letter of transmittal to President Gardner, "If I were to paraphrase our recommendations it would be this. We must restore a more appropriate balance among the traditional categories of scholarly activity of the faculty, and we must exercise more judiciously our flexibility in evaluation of faculty performance that is currently available in our academic personnel manual, yet infrequently utilized."

History of Criteria for Promotion and Appointment

LaBerge: Can you--

Pister: What I should just add, without reading the entire report into the record, what I would like to put in this oral history, is the analysis that I did of the history of the academic personnel manual's instructions to appointment and promotion committees. It was very interesting. I was able to go back for four decades to examine how the criteria for appointment and promotion had evolved over those four decades.

LaBerge: This manual was systemwide.

Pister: Yes.

LaBerge: Each campus didn't have their own.

Pister: No. No. As you're aware on things like this, there is a university policy. The implementation of the policy certainly had a quality of campus specificity to it. Not every campus understood the implementation the same way nor was necessarily the culture of the practice quite the same on each campus. I'll come back to that later on when we talk about how the report was received.

The interesting thing is that if one went back sufficiently far--I was only able to go back forty years at the time--the interesting thing that I found was that there was always an emphasis on superior intellectual attainment. Superior intellectual attainment was certainly the time invariant *sine qua non* for appointment and promotion. The interesting thing is that the evidence required to support superior intellectual attainment underwent a significant evolution over time. To make that point, let me read how superior intellectual attainment was evidenced in the 1958 statement. "As evidenced"--I'm quoting now--"as evidenced in teaching and by scholarship, creative ability or comparable achievement." The thing that's very interesting here is the term "research" does not even appear in the statement as to evidencing of superior intellectual attainment. That was essentially the

early version. In 1968 that statement was changed to read, "As evidenced both in teaching and in research or creative achievement." So it was not until 1968 that the word research appeared in a statement of evidence. In 1970 it remained the same.

LaBerge: It's interesting that it was after the Free Speech Movement that research was added.

Pister: I don't think there's a causality there [laughter], but--you're correct. That's true.

Ernie Boyer's Four Scholarships

LaBerge: It's interesting.

Pister: But I think it was an uncorrelated coincidence. So that was one evolution. There's a second one that I'd like to call attention to and that has to do with the flexibility in interpreting the criteria in individual cases. We're talking about, of course, examining what is called the proper work of faculty in teaching, research and service, the issue of flexibility. In 1958 the statement read: "The review committee will exercise reasonable flexibility balancing where the case requires excellence in one area against less distinguished achievement in another." I think that's a very clear statement of the possibility of exercising flexibility. Ten years later, in 1968, that statement was altered to read: "Heavier workload in one area against lighter workload in another area." A somewhat more ambiguous statement of flexibility. Then in 1970, two years later, it was rewritten once again, and it took the form, "Heavier commitments and responsibilities in one area against lighter commitments and responsibilities in another."

Well, to continue, what our committee did basically was to examine the current practices, in so far as we could, on the campuses. I met with the University Committee on Academic Personnel, had an interesting discussion with them at one point. Of course, the faculty members from the campuses brought a great deal of their own personal experience to the discussion, and what we ended up doing was to basically hang the major thesis of our report on a book that had just been published by Ernest Boyer. I think the name Ernie Boyer for most readers will immediately connect to a former president of the Carnegie Foundation for the Advancement of Teaching, a person highly regarded in higher education in the United States who alas in the last years passed away. But Ernie Boyer had published at just about the same time our task force was getting started. [paper shuffling] I'm looking, yes, he published a report, later a book, called *Scholarship Reconsidered: Priorities of the Professoriate* and--

LaBerge: Was this, was it suggested to you to read that or did you kind of pick that up on your own?

Pister: No, I picked that up and brought it to the committee. [interruption] In Boyer's report, later his book, the question that he asked is the following: "Is it possible to define the work of faculty in ways that reflect more realistically the full range of academic and civic mandates?" In our own personnel manual in the section on appointment and promotion, there's a crucial statement directing such committees in the following way. "The review committee shall judge the candidate with respect to the proposed rank and duties

considering the record of the candidate's performance in one, teaching; two, research and other creative work; three, professional activity; and four, university and public service."

So the question Ernie Boyer posed if we have these four areas to examine, is it possible to really look perhaps using a different set of measures across those four things in a way that reflects more realistically the full range of responsibilities in support of the university's mission? He did that, I think, in a very interesting way by defining creative work or scholarship as scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching. Without completely reading into the record Ernie's book, briefly, the scholarship of discovery is what is normally called research, that is the creation of new knowledge. He pointed out, and I certainly agree with this, that the number of people that can discover important new knowledge is relatively small, even in the University of California, I might add.

A much larger group of faculty are good at the scholarship of integration, that is taking new knowledge and sifting through it, putting it, what I used to say, putting knowledge over a common denominator so that there's not a lot of disparate insights into something, but rather creating a unified picture of a field. The scholarship of integration is extremely important in the university. Otherwise, with the exponential growth of knowledge, it's impossible to keep up with a field if you're unable to integrate and consolidate different perspectives.

As a member of a professional school, no faculty member has a problem with the scholarship of application. Engineering, or any of the practice professions, basically exists for the application of knowledge even though there's an element of creativity or discovery as well. But it's certainly manifest in the work of a faculty member in the application of knowledge. Alas, in other areas of the university, social sciences or the humanities, the scholarship of application is much less understood, much less well understood let alone celebrated. And then finally the scholarship of teaching, which is the communication of knowledge to peers and to students. So we found that those coordinates of a faculty member's scholarly work were useful. I might add that many colleagues found that not to be useful.

LaBerge: Colleagues on the committee or outside?

Pister: Outside the committee. I'll come to that later on. So we kind of built our report--

LaBerge: Around those.

Pister: Around those. I think it's less important to go into any detail now to what the findings and recommendations were. Rather let me now move to the process of communication and discussion that ensued. We basically had a set of recommendations that were contained in the report. I should say for the record, I composed the first draft of the report sitting at my computer in 727 Davis Hall. It went from me to Ellen Switkes who was at the time working as a staff member for Vice President Frazer, and she prepared the draft that the committee reviewed. I don't remember how many iterations there were in the committee, but it finally converged with relatively little dissent. There was no strong minority feeling on the committee.

Response to the Report

Pister: That begins the next phase of what to do with the report. It was a report called for by the president. The president communicated the report to the Academic Council. The Academic Council, as you know, essentially the executive body for the Assembly of the Academic Senate of the university, reviewed the report briefly, and in this case, it was a process question. It referred the report to the University Committee on Academic Personnel, UCAP, because the council on an issue like this rarely acts, in its own interest, without referring a matter to a special committee. So it referred the report to UCAP. I am told, I wasn't, of course, present for this, but I am told that UCAP gave the report about a twenty minute discussion, and basically said thank you, and that's the end of the report. So in other words they didn't want anything to do with--

LaBerge: Implementation?

Pister: The implementation of the report. Well, interestingly enough then what happened was the president decided, I am told, that he wasn't going to go there. It was his report essentially. So he, had I think, 10,000 copies of the report published and he had sent to every member of the Academic Senate a copy of the report. That was step one. Step two--

LaBerge: Because only the committee had seen it.

Pister: Yes. Right. I think we returned the report to the president in June of 1991. At the end of July 1991, Vice President Frazer wrote to chancellors with the following instructions. He said, "I'm sending for review and comment the report of the Task Force on Faculty Rewards, and the president has requested that I consult with the campuses and the Academic Council in weighing the recommendations." So he said, "Early in the fall, I intend, if you concur, to circulate this report to all members of the Academic Senate and I request that you consult, as appropriate on your campus, and send your comments next April, April '92, to Assistant Vice President Ellen Switkes." So what he did by sending this to the chancellors was to enable the report to be reviewed from an administrative perspective in the university, the chancellors, and at the same time sending it to the campuses, so that the divisions of the Academic Senate on the campuses could review it from a faculty perspective. As I remember there was a further instruction that urged the campuses where possible to merge the two perspectives in a report back to the president, the senate perspective and the administration's perspective. So that happened in the summer of 1991. Beginning in the academic year '91-'92 each campus now had both a senate and an administrative review going on. That's when the fur really began to fly, I gather.

LaBerge: Where were you? Were you on sabbatical right now?

Pister: This is, let's see. This is fall '91. No, I am now off of sabbatical leave. I am now interim chancellor.

LaBerge: So you have plenty to do besides listening to people's comments.

Pister: I am interim chancellor at Santa Cruz in the meantime. I became one of them and not one of us, in the eyes of the faculty.

LaBerge: Actually it's kind of an interesting time that you are doing this report and then became chancellor, almost looking like you're writing it from that perspective, but you didn't.

Pister: Yes. That's right. The report was widely discussed on the campuses. There was an All-University meeting held at UC Santa Barbara. I went down to that meeting and presented the report and got really slammed by some people on the campus. I ultimately received lots of letters from people commenting on the report long before, or in addition to, the formal reports that went to the president's office.

LaBerge: What did people object to most?

Pister: I think the primary objection was the stand that we took that said that there had been an exaggerated emphasis on research at the expense of teaching and service. We urged that there be peer evaluation of teaching as there was peer evaluation of research, that simply looking at student evaluations of teaching was really a very, very narrow view of how well a person was conducting his or her teaching. We encouraged developing what Lee Schulman at Stanford would call the teaching portfolio, that is putting together a body of evidence for a faculty member that would substantiate the quality of teaching.

A more sweeping condemnation of the report was that, giving more emphasis to teaching and to service, whether it was professional service or community service, committee service or whatever, would simply erode the quality of the University of California faculty. That if we stepped in that direction we were going over the cliff. I remember well one of my very dear colleagues at Berkeley, Bob Middlekauff, who later went on to do many other important things in his life. I think he was dean and provost for letters and science at that time. He wrote a letter to me and said, "If this report is approved, it's going to kill the University of California." He was really outspoken about it.

Anyway, the UC San Diego division of the senate just really ripped the report up one side and down the other, didn't want anything to do with it. The Davis campus probably was one of the most sympathetic campuses, and I think by then Carol Cartwright had left Davis. So it wasn't her influence. It was just the culture at Davis was more open to this report. I think Carol Tomlinson Keasey was part of that. She was an associate vice chancellor at the time, and I think she took the report and was very favorably impressed by it. I think it was well received at Santa Cruz, not because I was chancellor certainly. But it was much more consistent with the history at Santa Cruz since it did not have the number of graduate students and the emphasis on research at the time. So it was not a problem there.

Modest Change in Academic Personnel Manual

Pister: Actually to bring this section to a close, what happened then was all the recommendations from the different campuses came in. They were examined in Frazer's office and iterated with, largely with me at the time I guess. There were some relatively modest changes made in the academic personnel manual.

LaBerge: Do you have them there or do you know what they were?

Pister: Yes. They're in here. Somewhere we have them.

[31B]

Pister: But in retrospect, I think the most important outcome of this report was not that there were changes made in the academic personnel manual, but rather that the whole culture of the academic personnel process, the acquisition and examination of evidence of creativity or superior intellectual attainment, to use the term of art here, was discussed. I think the culture in which this was practiced in the personnel review process was questioned and very modest but I think identifiable changes were realized. I know at Berkeley, the Budget Committee allowed an unprecedented thing: that a faculty member could essentially write a contract that, for the next period of my review I'm going to concentrate on this and not on that and--

LaBerge: For instance, on service and not research or--?

Pister: On teaching, say, and I don't remember the alternatives exactly, but there was an element of flexibility introduced here. The Davis campus, I think, and I don't have specific evidence to relate, but I certainly recall they took more significant steps to be more flexible in the way the evidence was acquired and presented. I don't remember at the moment now about other campuses. I do remember that UCLA was fairly supportive of this too. Chancellor Young was behind it. It was for me a very interesting experience to have gone through this whole thing. It certainly gave me a much better picture of the range of views of the faculty in the university about what they should be doing with their time and how it should be assessed.

I might add that at the same time this was going on, there were things going on in other parts of the United States examining the whole issue of the faculty reward system. In fact, the American Association for Higher Education held a conference on the faculty reward system. I remember it was in San Antonio, Texas, because Dick Sisson and I went down and presented a paper representing what we had done. I remember it very well because the session chairman who introduced me at that session was Bob Berdahl who was in the process of moving from Illinois to Texas at the time. So that's when we met first years ago.

LaBerge: When you say the word faculty reward, does that refer to gaining tenure only or does it also refer to salary?

Pister: It refers to both. What I'm talking about is essentially a part of the academic personnel manual, which is contained in section 210.1(D), which is the part of the section 210, the Appointment and Promotion Review and Appraisal Committee. It says, "Instructions to Appointment and Promotion Review and Appraisal Committee." So it's initial appointments, merit increases, changes in rank between the steps of the professoriate. It's the whole ball of wax, so to speak.

LaBerge: Can you connect this back to the affirmative action conference you'd been to, how this connects to that?

Pister: Well, certainly one of the things that we talked about here was the issue of encouraging and rewarding faculty service that could be connected to the diversification of the

university. I'm trying to see if I can quickly find where we talked about that because it was a very modest statement, but it caused lots of people to be upset. Yes. Here it is. We said, "The development of human resources through personal mentoring and active involvement in affirmative action and other equity and diversity-oriented pursuits is integral to the life and purpose of the university. At no time has this been more important than the present. As the population of the state becomes more diverse the populations of students and faculty must also become more diverse. Implementation of these and other diversity goals is a shared responsibility among all faculty, and faculty should be encouraged to pursue these activities and be rewarded for meritorious achievement in the areas of equity and diversity wherever engaged in carrying out the proper work of faculty members."

So in other words, to encourage pursuit of diversity in teaching and research and service. That was a bitter pill for some people to swallow. But alas, if I can bring this up-to-date, today interestingly enough, I'm serving on the Berkeley campus Committee for the Status of Women and Ethnic Minorities, and we are struggling with the campus' strategic plan, which is in the process of being drafted for Berkeley.

LaBerge: This is the physical strategic plan?

Pister: No, the academic strategic plan. The interesting thing is that the thing I just read here from this report is probably more relevant and more important today than it was eleven years ago when I wrote it or when we approved it. The strategic plan at Berkeley, alas the draft that I read most recently, hardly touches the issue of diversity in the university, on the campus. I was absolutely dismayed when I saw this first draft and am taking steps, in so far as I can, to influence the inclusion of this as part of the mission of the university and of this campus.

Well, at any rate to close the door on this and finally, after the personnel changes were proposed, the personnel manual changes were proposed, as I said I'd already become chancellor. President Gardner asked me to present this to the regents. So I presented the conclusion of the study and what we were doing to the board sometime in 1992. I can't remember exactly when it was, but at that time I was already interim chancellor.

LaBerge: How did the regents react?

Pister: I don't remember that there was any discussion.

LaBerge: There was nothing they could do about it anyway?

Pister: No, it was an internal matter. But it was reported to them for information. Of course in 1992, I think, this would have been even before Regent [Ward] Connerly had been appointed. So there was no issue about affirmative action on the board at that time. That's a kind of a long discussion about something. It's a report that I think had a value comparable to and a reception comparable to the famous Neil Smelser Report on Undergraduate Education. [Laughter] Neil and I, from time to time, have gotten together and said well, here are two people who created infamous reports that really didn't go as far as either one of the authors of the reports would have liked them to go.

LaBerge: But it sounds like somehow perception changed?

Pister: I think there--

LaBerge: And brought up that issue.

Pister: I think there was a modest change in perception. I'm told--it's very hard to get information about things like this--that personnel committees began to be much more sensitive to the evidence for teaching, and people that had good research records but poor documentation on teaching or criticism on teaching, some cases like that were really dealt with properly.

Faculty Peer Review

LaBerge: What about peer review of teaching?

Pister: I'm afraid that never really took off. I'm not aware of who moved in that direction, but I don't think it went very far.

LaBerge: I can see where that would be scary.

Pister: Yes. It's a lot of work.

LaBerge: It's a lot of work, but also all of a sudden, will I be found out or--?

Pister: I don't think I put this on the record yet, but in my early days as an assistant professor here, in our department we had regular peer review of our teaching by senior colleagues. I think since we're talking about it, perhaps I should complete the story. But when I was coming up for perhaps just a step increase as an assistant professor--I don't remember whether it was my promotion to tenure case--I was teaching a junior course in mechanics materials, and my mentor and senior colleague Professor Egor Popov came to visit my class and sat quietly in the back of the room.

LaBerge: Did you see him come in?

Pister: I knew. Yes. I knew.

LaBerge: He told you ahead of time.

Pister: You never drop in on a colleague without informing him ahead of time. That's just not done, at least at Berkeley.

LaBerge: I was an elementary school teacher, and that was done. [Laughter]

Pister: I understand. No, that's one of the huge cultural differences that I've been struggling with in a whole other life. So Professor Popov came. I had to explain a problem on the board that involved finding the shearing stress in a rivet and to find the shearing stress in a rivet, you have to find the force on the rivet and divide that by the cross-sectional area of the rivet. Well, rivets are circular. I, whether it was the presence of Professor Popov or what,

to do this day, I will never know. At that point, I forgot the formula for the area of a circle. I stood there absolutely paralyzed while I fumbled around trying to figure out how to compute the area of the cross-section of the rivet. I think perhaps I asked, yes. I think I finally admitted that I didn't remember. So some student told me how to do it. So Popov at the end of the class said, "Well, you weren't at your best today [Laughter]. Perhaps I should come back and review your class at another time," which he did. I think I succeeded in getting my merit increase or whatever it was.

Those things happen. Typically they have happened to me in other classes at other times in my life when I was talking about something. Okay. You're doing a proof of a theorem or solving a problem, and at some point in this intellectual process that you're carrying out on the board, you're always thinking ahead of what's coming next. All of a sudden you come to a river where there's no bridge. You forget the next step, and your hand--I'm left handed--so I'm writing with my hand doing what I know how to do now, but my mind is a step ahead seeing what I'm going to do next. That is one of the most devastating experiences. I've experienced it many times as a faculty member while talking to a class.

LaBerge: So what do you do in that case?

Pister: You pray. [Laughter] One technique is, you create a diversion. You stop and say, "By the way, we should go over and look at this." You find something else to talk about for a while in the midst of this. That's not entirely unproductive and it certainly more than once has kept me out of the fire.

But before we walk away from this section, there's one other thing I want to mention too that is interesting. I said that while we were doing this in the UC system, there was other activity going on. Notably there was an effort being made at Stanford by then-President Don Kennedy. I had never met Don Kennedy personally at this point. But I knew about Don because my son-in-law Richard Whitmore worked for Don at Stanford University. Ultimately, I met Don at the wedding, my daughter Jacinta and Richard's wedding in Lafayette, but Don and I corresponded because he had the same perspective, the same concern about the faculty reward system at Stanford. He had written a very fine piece that he presented to the Stanford Academic Senate. He shared that with me as I did copies of our task force report with him. We were kind of a mutual support society for a brief period at that time when we were both, I for the university and he for Stanford, trying to sensitize faculty to the importance of celebrating and essentially rewarding teaching and not focusing so heavily on research.

The other thing I'd mention, I was invited to go to the University of Maryland. I was invited to talk to the faculty of the University of Maryland at College Park about our task force report.

Okay. I think that brings that issue to a close. I have no idea what current practices are since I'm pretty far removed. I guess I could add an epilogue to the report. While I was chancellor at Santa Cruz, of course, it was my responsibility to ultimately be the deciding person for promotions to tenure. I often also reviewed the promotions to full professor, as well as any difficult cases of any kind that my executive vice chancellor wanted to share with me. But every tenure case by university policy has to be recommended or approved, I should say, by the chancellor. So I had one particular case that I'm really proud of. There was a young woman's case that came to me that had absolutely strong and

compelling evidence in teaching and letters from outside reviewers that said that her scholarship, her research was absolutely outstanding, but this person had yet to publish a single paper. So I was really caught on the horns of a dilemma here. I had these very strong letters, an excellent record in teaching but no archival publications. So you might guess what I did. I granted her tenure, and as far as I know she has not disappointed the Santa Cruz campus, but I in all honesty lost touch with what she's doing. I should find out whether or not my judgment was right or not.

LaBerge: Was this in the humanities or in the sciences?

Pister: It was in the humanities.

LaBerge: Do you want to go on and talk about your involvement with diversity issues or do you want to go on to the American University of Armenia?

Pister: I think it might be good to do the latter at this time because this will pretty much then complete some aspects of the Berkeley years, leaving my research and professional activities and Academic Senate service to be discussed subsequently. So yes, since that happened in that sabbatical year, by the way in retrospect you can see that my sabbatical was spent in service to the university; I didn't have a lot of time to speculate. But of course, the fact that in the fall the president started to talk to me about going to Santa Cruz changed that whole thing anyway.

LaBerge: Did you ever consider just plain old retiring at that point?

Pister: Yes, that was the year of VERIP I. I went to all of the VERIP orientation sessions that were held on the campus here. I filled out the form and was my final signature away from taking VERIP I. I'm certainly glad that I was rescued from doing that because--

American University of Armenia, 1990

LaBerge: In retrospect--

Pister: In retrospect it was certainly the right decision for me. I was able to do things that I didn't know I was going to do, that I really appreciated or enjoyed doing. So I'm glad. Let's turn to one of those right now. Following the earthquake in Armenia in 1989, President Gardner was visited by my Armenian colleague Armen Der Kiureghian and my long-time graduate student colleague, Mihran Agbabian, who had a consulting engineering firm in southern California, and Stepan Karmardian from UC Riverside. I think I've talked about this briefly.

LaBerge: Yes.

Pister: Let me put it in context for today then. As a consequence of that, the president said, well, let's look into this further, and he asked Bill Frazer to head a task force. There were about ten of us, I think, that went to Armenia in June of 1990. We pretty much went independently and met there, and I remember the interesting experience of flying there. I

think I flew to Frankfurt and from Frankfurt to Moscow on Lufthansa, and then in Moscow we flew down to Yerevan on the Soviet airline Aeroflot, which is an experience in itself. So we got there. Remember the Soviet Union was still intact in June of 1990. So Armenia was a Soviet satellite state.

We stayed in a government hotel of some kind, and we were very, very well treated by the local people. We visited the scene of the devastating earthquake of 1989, Leninakan, Armenia, the city that was virtually wiped out by the earthquake. That was really the genesis of the whole idea, the devastation there. My Armenian colleagues wanted to explore what could be done from the university's perspective to try to prevent that sort of catastrophe in the future and could help the state of Armenia. So we visited there and met with the mayor of the city. We visited with the minister of education of Armenia, went to the Armenian Academy of Sciences, visited Yerevan State University where the rector was a person whose research was very close to my own field, a gentleman by the name of Ambartsumian. I had acquired his work written in Russian back in the sixties because it was overlapping work that I was doing with my graduate students here. So I knew his work and then he had visited here in the seventies at some point. So I had met him here and we had talked then.

LaBerge: Now, do you know Russian?

Pister: No. I don't know Russian.

LaBerge: I thought I was missing something. You read it in translation.

Pister: Well, I think one of my students knew Russian, or we had it translated. But you can always look at the equations, too, and you can look at the pictures, and you can get a pretty good idea, although I had two Russian-speaking colleagues in civil engineering to whom I could turn. So we visited these different places and got the lay of the land. As a result of that visit, Vice President Frazer's report motivated the president to take to the regents the idea that the University of California could provide some in-kind support and administrative oversight, to sort of be essentially the patron of an American University of Armenia to be located in Yerevan.

The founding president was my classmate Mihran Agbabian, and I was a member of the founding board of trustees. The way we set this up was to involve the University of California in an advisory and essentially a contributed service way. We set up an entity called the American University of Armenia Corporation, which is a corporation in California. It is governed by a board of trustees and the chairman of the board has been always the senior vice president for academic affairs of UC. It was Bill Frazer and was then Walter Massey and is now Jud King. The responsibility of the corporation is to contract with the entity called the American University of Armenia located in Armenia, to contract with them to provide the facilities, the services, to do the work of the university, in other words, on the spot.

A part of the complexity of this was that under the old Soviet law it was extremely difficult to figure out how a California corporation could work with an entity in the Soviet Union. Without going into the legal details, we had legal counsel in the person, Jan Behrsin who has helped us through all this, but it was a very complex arrangement from the beginning. Then, of course, the Soviets pulled out of Armenia and left a vacuum, I

might add, of services and infrastructure and economy that just devastated the country. Together with its war with the Azerbaijan people, it just put Armenia in a terrible spot, which has influenced the development of this university.

But at any rate, after the Russians left we had to set up a new relationship. The Armenian codes had to be revised and we had to be receptive to, responsive to that. So it's been a kind of a legal nightmare, but we're pretty much out of the woods on that now. The government of Armenia has been very generous in giving us property and buildings to get started and we're adding new buildings now constructed largely through gifts of Armenian Americans and the university is chugging along.

LaBerge:. Do we provide professors too?

Pister: The way we've been doing this, the teaching force, in the beginning, has largely been American faculty going for short periods of time to teach courses. There is a permanent faculty, a growing permanent faculty in Yerevan now, and the infrastructure is reaching the point where we're in the process of starting the kind of visitation and consultation necessary for accreditation.

I'm really pleased that the Western Association of Schools and Colleges, since this is an American corporation that we've set up and the instructional language is English, is willing to undertake accreditation of the institution, which pleases me to no end. Since I worked on the WASC commission, the senior WASC commission for three years, I knew the people there. I pleaded mightily to let them be generous and flexible in their understanding of what we were trying to do. I remember saying, please give us a chance here, because they could have just turned the thing down outright and said we're not interested in doing that. I said this is a really, very tender flower growing in a hostile environment, and it needs time to gain enough stature and strength to survive, and we really hope that you'll give us a chance to show that this thing can bloom.

The university started with engineering and business, public health, law and political science. We've added most recently computer science. I'm still a member of the board. In fact, I'm an officer of the board of the AUAC corporation. I'm treasurer of the corporation, which is a terrible position to be in because of the constant problems with resources that we have. We have an office in the Kaiser building for the AUAC, and that office has to disperse funds to AUA. It has to merge its books with the people in Armenia. They have a different accounting protocol. The currencies are different.

LaBerge: They aren't on the euro, are they?

Pister: No. There's a fierce difference in time zone, and everything is complex. But miraculously we're surviving and a significant number--. It's purely a graduate school, I have to mention, and a significant number, I think it's over 80 percent of the graduates of the institution have stayed in Armenia.

[32A]

LaBerge: Who from the university serves on this with you, or has in the past, besides the vice president?

Pister: Ah yes. Well, the dean of engineering is my colleague Armen Der Kiureghian in civil engineering here. Currently Steve Barnett in the law school is overseeing the law program. The UCLA campus is instrumental in providing the instruction in English as a second language. That's an important criterion for admission to the university, facility in English, of course. Theony Condos who used to be Bill Frazer's and later Walter and Jud's assistant is the secretary of the corporation. Lyman Porter from the Irvine campus is a member of the board. Lyman was also a member of the visitation team.

The director of international education, formally education abroad, who is located at the Santa Barbara campus, John Marcum is a member.

He was also a member of the visiting team in 1990. The other members are largely people from the Armenian American community. Oh, I should say former Regent Meredith Khachigian is on the board. Meredith is an Armenian by marriage. She has a great interest in Armenian causes and Armenian people and has been a real help to us.

LaBerge: Any funds from the university go to it?

Pister: No, as I said the corporation was set up in such a way as to allow what I would call the human resources of the university to be contributed in-kind as we, well, since I'm no longer employed it doesn't apply, but people like Jud King and the other faculty members or officers of the university that are on the board or the associate counsel, Jan that works with us. They contribute their time simply. There's no direct billing of the AUA by UC. I should say also that the endowment of the university is managed by the treasurer's office.

LaBerge: The UC treasurer's office?

Pister: The UC treasurer's office. That's one of my responsibilities as treasurer to deal with that and to recommend the investment policies that we have. We were very fortunate early on to get the support of a New York group called the Armenian General Benevolent Union, AGBU. That union, which exists for a broader set of Armenian-related causes basically dealing with people in Armenia, included the university as one of its major areas of activity, so from the beginning we received a substantial annual infusion of resources. In the beginning we couldn't have existed without it. Now we have that to a lesser degree and the United States State Department through its USAID program has given us a significant endowment that we can use the income from.

LaBerge: Does it have any relation to the other American Universities abroad like Beirut--?

Pister: No. Beirut and Cairo are two historical examples. Only in the sense that it has a similar purpose. Our current president whose name is Harout Armenian appropriately is a graduate of the American University of Beirut. He's a professor in the school of medicine at Johns Hopkins University part-time, and he spends the other part of his time as president of AUA. The founding president Mihran Agbabian was also a graduate of the American University of Beirut. So they brought a lot of experience in that kind of institution in the Middle East. Just to conclude this, unless there are other questions that we might hit here, I found this to be a very interesting opportunity to use some of the experience that I'd gained in the University of California system, to transfer that to an institution that's being born and developing for the first time in a country that had no experience with American-style higher education. So the whole question of shared

governance, of how to admit students, how to do the grading, the content of the curricula, things that are pretty much taken for granted in the United States are all very new to them. It's quite an interesting experience to try to transfer that and to see where it fits and where it doesn't fit.

LaBerge: Do you continue to go to visit?

Pister: No, I haven't. I was all set to visit last October at the time of their tenth anniversary of the institution. I was asked to go because Provost Jud King was unable to go. I was all set. I had my tickets and all to go to take part in the celebration of the tenth anniversary, but the September 11th business made me wary about traveling to the Middle East, and I cancelled my reservations. I did go down to the University building on Franklin and do a videotape, and my remarks were videotaped and sent to Yerevan by courier and played there.

I have to say two things about that videotaping that show how things can go wrong. I went in, sat down, cameras all fixed, pushed the button. All right, you can start. So I start. I gave my talk with as much energy as I could. The person running the facility said, "Just to be sure we better play that back and see how it looks." Well, he played it back. There was nothing there. It hadn't recorded. [laughter] So we had to reset the camera, and I had to do it all over again. About halfway through the second time while I was in the tape-recording of this thing, there was a telephone on the table. The telephone rang. Of course, your first reaction was--I was sitting talking to the camera. No. No. So that appeared in the middle--I'm told when they got that part in Yerevan they cut that part out with the hands saying no, no. Turn it off.

Then there was a courier waiting outside on Franklin Street to grab the tape and to rush it to San Francisco. He was going to pick up Dean Der Kiureghian and take him to the airport to catch a flight to Paris and to Yerevan, and the time was getting close, but they made it. Both of them made it. So much for Armenia.

California Council on Science and Technology

LaBerge: Well, what would you like to go onto in the time we have left? We haven't talked about the California Council on Science and Technology. Or what else do you have in mind?

Pister: No, that's something--

LaBerge: It was in this time period.

Pister: Yes. I think that's appropriate--that happened shortly after I got to Santa Cruz. First, let me spend a moment to explain what the California Council on Science and Technology is. In 1988 Assemblyman Sam Farr and Senator John Garamendi sponsored a bill, which subsequently was signed by the governor, establishing the California Council on Science and Technology. Its purpose was to draw on, at the beginning, the University of California, the private research universities in the state, Stanford, Caltech and USC and

the CSU system. Those were the founding members, to draw on the resources of these institutions of higher education to help inform policymakers and the governor's office on policy issues in which science and technology were important elements.

In fact at the outset when this was first put together, I think this was my first opportunity to meet Sam Farr and John Garamendi. I was dean of engineering at the time, and I remember we had some kind of meeting down in Alameda at Harbor Bay and I met them at that time. No, I'm sorry. I had already met John Garamendi. We took a trip to Italy, I think I've talked about that the trip, the trip to Bari. I had never met Sam Farr yet, but I met Sam at this, connected with the early days of the CCST. The council was set up with those founding institutions. That meant that each of these institutions put a certain number of dollars annually into the budget of this council, which was headed by an executive director.

Composition

Pister: The council itself is comprised of about thirty members, half of whom are academics from these institutions, and the other half are relatively senior people in the business and industrial companies in the state of California. And there's essentially, what is it called, a president of the council that manages the direction of the council. The actual day-to-day operations are handled by an executive director, staff position. Then the governance of the council is in the hands of the board of directors who are selected by the president of the University of California and are representative again of industry and the founding institutions. The original chairman of the board of directors was Bill Frazer, the vice president at the time. The original executive director was a gentleman by the name of Don Shields who had been at one time, I think, president of Cal State Fullerton and then went on to be for a brief period of time president of Southern Methodist University. He was a person that I was just barely acquainted with.

LaBerge: You mean when you were appointed you were--

Pister: I'll come to that. That was the original organization for the council. In 1992 Bill Frazer retired from the vice presidency, and at some point I think it was in the spring of '92, President Gardner asked me to be a chairman of the board of directors of CCST.

LaBerge: But you'd been on the board--

Pister: No. I hadn't.

LaBerge: Oh, you hadn't been anything to do with it.

Pister: I knew about it, but I didn't have any interaction with it. I'm trying to think. Because Bill was succeeded by Murray Schwartz for a period of time from UCLA, and then Murray was succeeded by Walter Massey in that same position. So each of them were on the board with me during the period of time after I was appointed as chairman of the board. In the early days of my tenure--see this thing was created in '88, but it really in the first years did, I'll have to say, very little. When I got on board in 1992, I met with the

executive director Don Shields, they were pretty well fixed on a thing called Project California. There was one project they were working on, which was basically to figure out how to create more jobs in a variety of areas associated with transportation and energy. All the efforts of the council were directed to this one thing. There was very modest activity in other areas.

Well, and I'm hazy on the dates now. At some point in '93 or probably '94--I can't remember exactly--the executive director became seriously incapacitated by virtue of health, and he had to resign from the position. So I chaired a search committee for a new executive director and had the good fortune of attracting to the position, either at the end of her term or just after the end of her term as founding dean of the school of engineering at UC Riverside, Susan Hackwood. Susan came on board, and I could go back and examine the dates, but at any rate came on board replacing the previous executive director. She's a person of enormous energy and a very self-starting type of person with great initiative, and she quickly transformed the council. She saw the importance of connecting the council to Sacramento. We established an office in Sacramento. We had one before. It was down in Newport.

Focus

Pister: So that we put a permanent staff member up in Sacramento to be in constant touch with legislative staff and the governor's office. We broadened the focus and took as our pattern the National Research Council in Washington, which is the union of the three national academies in Washington who are called on to advise the Congress on issues relating to science and technology, by essentially employing volunteer study committees that produce reports that are then sent to either the federal agencies or in some occasions directly to Congress. So we adopted that model, and Susan was extremely successful in really getting the council going and getting it engaged with both houses of the legislature and most important with the office of the governor. It didn't come easily and there's some interesting things along the way that I'd like to mention.

By this time David Gardner had resigned as president, and Jack Peltason was on board, and I think we were at a meeting of a thing that Jack created, the California Business Higher Education Forum. He had created the Business Higher Education Forum when he was in Washington, D.C. serving, I think, as the president of the American Council on Education. Anyway, Jack started a comparable thing here in California, and all the chancellors had to belong to it. We had to pay I've forgotten how many dollars a year, and industry members had to pay five times as much, I think. So we were meeting down there, but we also took the opportunity because there were some other people coming that we wanted to talk to, and so we set up a meeting there. The meeting was Susan Hackwood and myself, probably the council president, because I'm chairman of the board; the thirty-person council over which we have oversight has a president, and I don't remember who it was at the time, but he was there. We had two people who were close to the governor. This would've been Governor [Pete] Wilson at the time. One was his director of finance, and the other was a close advisor, Bill Hauck, who headed the Constitutional Revision Committee for the governor.

I still remember that lunch because we described what the council was organized to do. I naively said, "We are like the National Research Council in that we strive to present recommendations on policy issues that are politically neutral and are based on factual information and not slanted toward one political philosophy or another." Well, that dropped off the table like a lead balloon. I don't remember which one it was, but one of the two people close to Governor Wilson said, "Well, you know that's interesting, but Governor Wilson kind of likes to appoint his own people to get that kind of information."

LaBerge: To get politically neutral information. Right. [laughter]

Pister: So we kind of struck out on that. Okay. We had a change of administration in Sacramento, and I want to say to his great credit from the beginning, Governor [Gray] Davis saw the council as not an enemy or a threat, but rather either neutral or conceivably a positive force for him. So that he right away began to send his staff people to talk to our meetings. We met typically now in Sacramento, and in fact until the crisis last year, the terrorist crisis last year, we met in the governor's conference room, which was symbolic of his trust in what we were trying to do for the state.

Energy Study

LaBerge: Did they ask your help during the ongoing energy crisis?

Pister: No. Interestingly enough, we were in the midst of a study for the California Energy Commission. The California Energy Commission had a fairly substantial budget to fund energy research projects, alternative energy projects. We had a first rate task force of people working on that project, which was ultimately very well received, but we had not been asked prior to that to say anything about the deregulation issue. That I think was seen more, was not seen to be a science and technology issue at the time at least. But we were very much involved in energy. We broadened our portfolio. We've done a number of studies. The trade and commerce agency in the state government is very closely connected to our work now, the Senate Office of Research and our presence now in Sacramento is very well established as it, I think, properly should be. We also did most recently a review of the literature, not of recommendations as to the efficacy of, a review of the literature surrounding genetically modified foods. To recommend a policy in that area is a treacherous thing, but we only did the study.

CREST and Critical Path Report

Pister: Perhaps two more things I would mention in terms of what we've accomplished recently. Two years ago we completed a study called the CREST report. That was funded largely by the Keck Foundation. The Hewlett Foundation may also have given us some support. That's an acronym for the California Research Environment for Science and Technology.

LaBerge: Not Crest toothpaste. [laughter]

Pister: No. No. What do I mean by the Research Environment for Science and Technology? We had a research team, a series of researchers who worked on particular components defining the environment, such as the business climate, the venture capital climate, the educational climate, the pipeline for science and technology workers. Everything that affects the quality and quantity of the economy that's associated with science and technology. The investment that our universities or the state is making in research and development and so on. This was a report that is not unlike a report that the National Science Foundation publishes biennially called "Science Indicators." It tries to give a chronological picture of how we're investing and what kind of policies we have and how are they affecting the economic productivity of the state, insofar as it depends on science and technology. So that report was sent out two years ago, and it was very, very well received, and I believe the trade and commerce agency in the governor's office is doing the same thing two years later. They're taking our model and doing the same thing. It's a logical thing to do. It's like taking the temperature of the state in this area.

The report that we've just completed this year is kind of a follow-up on that report. It's called a Critical Path Analysis of the Science and Technology Pipeline. This report is the first of its kind to study the production of the science and engineering workforce clear back to kindergarten, looking at K-8, 9-12, community colleges, colleges and universities, looking at the flow of students that starts in kindergarten and goes into these different levels of education in California and then taking out of that flow those students that are either following a science, natural science career or life science career, or are in engineering. We just published this report this last week, and I hope we'll have a significant impact on the thinking in Sacramento because it not surprisingly shows some real problems in California.

LaBerge: So this dovetails with your K-12 work, right?

Pister: Very much so. It connects right to the teaching crisis and so on. So I might mention just a few other things about the council. It's now, as I've said, much better recognized. We meet quarterly typically on the campus, one of the campuses of our sustaining institutions. Early on when I was board chair, I saw the necessity and the importance of bringing the California community colleges into the council. So at my suggestion we changed the by-laws of the council to bring in the California community college system as a member. Since they weren't a founding member, we changed the word to sustaining member. They pay dues like everybody else, but they weren't in at the beginning. Because the community colleges, apart from their role in transferring students to CSU and UC, have a huge responsibility to create the paraprofessional or technical force in science and technology. So I have found this activity in the last ten years very interesting.

LaBerge You're still board chair?

Pister: I still am. Yes. I suppose I'll stay until the president leaves, and then I'll probably step down when [Richard] Atkinson leaves. The first thing when he became president, I asked him if he wanted me to continue or do you want to appoint a new one? He said, "No, you continue." I've met some very interesting people as a result of this. I know people on all of the campuses now that are part of the sustaining membership and the members of the council from industry have been a real pleasure to get to know and to work with. So that's an interesting collateral activity that I had as a chancellor and I've kept since then.

LaBerge: How much time do you spend would you say on this a month or a year or--?

Pister: Well, there are four meetings a year, and they are day and a half meetings.

LaBerge: Then there are others in between.

Pister: Usually our board meets in the afternoon before the subsequent day meeting of the council. The rest of the communication, Germaine, is largely done by email. I do almost all of my communication with the executive director, Susan Hackwood, by email. Although once or twice a year we have face-to-face meetings outside the board meetings where we sit down together.

[32B]

Pister: It is a thirty-member council, which has a set of committees that carry out the work of the council. The board, of course, is just an oversight group that appoints the director, and we have a process for review of reports, and board members are involved in that so that we maintain insofar as possible a politically neutral report format.

Different Pressures on Faculty Members and Administrators

LaBerge: You might want to think about this and answer another time, but you are on so many committees, and have been all your life and continue--how do you divide your time? How do you find the time? What's the secret?

Pister: You know. I really never thought a lot about that. Now I'm still on five nonprofit boards. This is one of them, and I enjoy them, and that's why I stay. Since I don't have a full-time paying job now, it's not a problem. But during the earlier years, for example during the time I was chancellor and dean, the way this worked was that my calendar secretary basically allocated my time, and I just was a victim of whatever she said I had to do. [laughing] I had really good people in both cases that understood that I had a private life--

LaBerge: It's not like you didn't have a family. You had a large family, and you were doing a lot of the driving.

Pister: But most of this, Germaine, happened after my kids--

LaBerge: After the kids.

Pister: Were grown up, yes. No, my wife on occasion would independently talk to my calendar people and get them to agree that you won't schedule him every night or every day or whatever. So she was a moderating influence both when I was a dean and when I was chancellor. Even when I was in the president's office as the vice president, she talked with my secretary and tried to get some kind of an agreement. Well, when you're in a position like dean or chancellor, you're so programmed to do things, that you don't think about this so much.

I felt I think just as pressured as a faculty member, even though there were fewer formal commitments, you have the enormous pressure of preparing for your classes on a regular basis and keeping your research program going. I guess I would say I found the pressure as a faculty member more difficult to endure than the pressure of being a dean, chancellor or vice president. It's hard to explain that perhaps, why I would have felt that way because there was certainly a lot of pressure in these positions. But perhaps the distinguishing feature is that as a faculty member the work that you're doing usually is much more open-ended. Whereas as an academic administrator, the issues you're dealing with are difficult, but typically they come to you and you get information; you discuss with people. You consult. But you make a decision and that's it. Then you're onto another thing. It's the ability to terminate something. Whereas as a teacher and researcher, the luxury of saying that rarely existed in my life. Every time I taught a course, particularly graduate courses, you'd want to take your work a step further than it was the last time you gave it.

LaBerge: And I suppose you could never prepare too much. Like you can never study too much.

Pister: That's right. That's what I meant by it being an open-ended issue as opposed to a series of difficult problems that had a clear endpoint. I hope that makes sense because I've often struggled with that because I know--I've felt even though I would perhaps take home a briefcase, just like I did as a faculty member every night, the way you dealt with that briefcase was very different in the two kinds of work experiences. I don't know if other people have felt this way, but it certainly was the case for me.

LaBerge: Is that a good place to end today or--?

Pister: I think that probably is.

More on Task Force

[Interview 17: April 23, 2002] ## [33A]

LaBerge: Well, yesterday we almost finished the Task Force on Faculty Rewards, but you have another comment on a reaction to it from a faculty member.

Pister: Right. I'd like to jump back and add this comment. I mentioned that the task force, although it was well received by many faculty, had its very vocal critics, and I mentioned [Robert] Bob Middlekauff at Berkeley, but another that I had failed to remember was [Martin] Marty Trow. Marty and I had been friends for years, I guess born partly of the fact that we both served in the senate, and Marty was educated as an undergraduate as a mechanical engineer.

LaBerge: That's right.

Pister: He had an interest in engineering, and at one point when I was dean, we talked seriously about him possibly doing something in the College of Engineering at Berkeley. He at the time was in Sweden I think on a sabbatical, but I remember corresponding with him. It

never materialized, but at any rate, when Marty had a chance to look at our task force report, he was not, well, impressed by it. Particularly, he was not encouraged by the fact that I had drawn heavily from Ernest Boyer's work, *Scholarship Reconsidered.* Evidently Marty and Ernie didn't see eye-to-eye on a number of issues. So he was among those who expressed their displeasure with the report. I can't possibly cover all the list of people who might have been displeased [laughter], but both Bob and Marty being colleagues and friends, I thought I should include them as perhaps prototypical of the kind of dissent that was evoked by the publication of the report.

Research vs. Teaching vs. Service

LaBerge: Anything else besides the fact that you drew on Boyer's work or his ideas?

Pister: No, that was the only recollection I have was that he said tsk, tsk why did you pick this from Ernie Boyer? Whereas Bob Middlekauff's concern was much more centered on what the impact would be on the quality of the university. I also want to add, I don't think I mentioned this and stressed this enough in our last session. In addition to trying to find a way to bring back the importance of teaching in the evaluation of faculty workload or the proper work of the faculty, we made a point of trying to pick up and implement what was already present in the instructions in the personnel manual to allow flexibility in the trajectory of a faculty member. That is we felt that there was a very narrowing sense of what it meant to be a productive faculty member in the university, namely that you really had to be totally engrossed in research and in the remaining time find time for teaching and service.

This particular model of the distribution of faculty effort basically should be sustained throughout one's career. The flexibility that we proposed was present in the current guidelines but never really respected in personnel review processes: to see the possibility that faculty members, once having demonstrated beyond any shadow of a doubt the superior intellectual attainment that was essentially evidenced by scholarly activity in the discovery of knowledge and the integration of knowledge, that one would be able to step aside for example and do academic administration and not be penalized by stepping out of--what would be I guess called--the superior academic tract or to do work that was important and indeed essential in the university, such as working with the K-12 school system, or spending more time on teaching and less on research, or being involved in government or community service of some kind on a leave. But it simply was the fact, and I regret to say I think it's still the fact, that these should we say, alternative career tracks at different points in a person's career still basically are done at the peril of the individual in my view; that it's only possible to be an academic administrator or to take a leave to do anything, whether it's government service or industrial service such as getting involved in starting up a company, if you're an engineer or a chemist or a biologist now without taking a risk. These things are really seen as sidesteps, and you basically lose ground if you're not able in this sidestep to continue a strong research program. I think those comments are important to add to the earlier discussion that we have had on the task force.

LaBerge: It reminds me of the talk about women and science. Did you go to that? I'm trying to remember.

Pister: No.

LaBerge: Maybe you were away. It was a talk about how a lot of women don't progress in science because they don't have the time, for one thing, but it's really at their peril that they take the time off. It's similar.

Pister: Right. It's the biological clock problem for women, academic women in science. There's absolutely no question about that. I think the data are very clear on that. It's a very difficult step, a difficult process for women. There's a need to be more flexible in the application of the guidelines.

X. KARL PISTER'S RESEARCH

Beginning Interest in the Science of Engineering during Graduate School

LaBerge: Now that we're on the research topic, should we talk about your research? Maybe starting from the beginning, what your first interests were?

Pister: This, of course, is a very, very important and significant part of one's academic life. I don't think there was ever any doubt in my mind as to the importance of research; not only the importance but the interest that I had in conducting research. I even began to cultivate that interest as a graduate student when I worked on my master's thesis first of all under Professor Joe Johnson here. I guess a place to start here is to go back to my graduate work at the University of Illinois under my doctoral supervisor Henry Langhaar, who was professor of theoretical and applied mechanics at Urbana. When I arrived at the University of Illinois as a young graduate student, really the direction of my academic life or my interests within an academic life were not well formed yet. I had started very much as a civil engineer, and I actually had a year of practice in the navy as a construction battalion officer.

I think that experience then was added to by the first year of my graduate work here, which was still very much professionally or practice-oriented in civil engineering. It wasn't until I took two courses after I finished my master's degree--I was on the G.I. Bill still--I took two courses here as a grad student, post-master',s from my colleague Egor Popov, and his courses were much more, should I say, scientifically oriented. They gave an engineering science, in this case it was an engineering mechanics' perspective on structural engineering particularly, and it opened up for me a whole new vista about the rational sciences upon which one could build structural engineering. It was these courses and Professor Popov's tutelage, I think, that motivated me to go on and acquire a Ph.D.

So I left Berkeley the following year in 1949 to go to the University of Illinois, and I think we've talked about that. There I went not to the Department of Civil Engineering but to the Department of Theoretical and Applied Mechanics. That was largely an accident too because they offered me a teaching job as a half-time instructor. The head of civil engineering even sent my application over to theoretical and applied mechanics because of what my interest was. Well, to get back onto the track here, Professor

Langhaar was a superb teacher and engineering scholar, and he really got me interested in theoretical and applied mechanics as the basis for a whole range of engineering practices, civil and mechanical and aeronautical engineering. So I left the University of Illinois with my Ph.D., the dissertation for which even my faculty advisor Professor Langhaar said was a kind of a hifalutin or sophisticated work. I remember in my qualifying exam when a faculty member on my exam committee--not qualifying, on my Ph.D. dissertation defense--when a faculty member asked me if there were any practical application to what I'd done, with delight I said, "Absolutely none!" [laughter]

That kind of sets the stage for my arrival at Berkeley back to the department where I had been a lecturer and instructor before. Now here's a young Ph.D., thoroughly convinced that the science of engineering was a great deal more important than the practice of engineering. I was a purist in those days and really had very little interest in or regard for the practice of engineering at that point in my career.

Work with Boris Bresler on Strength of Concrete; Wason Medal

LaBerge: For instance, at that point would you have looked askance at the relationship with industry that later became important?

Pister: Oh, absolutely. Of course. I was in a sense an ivory tower academic at that point in my career. I remember still in those early years having a folder in my file cabinet, "Research problems to be worked on." I had the time that I could just write these things down, and I would just systematically work on these problems. That file didn't last very long.

So I came back as a very scientifically-oriented young faculty member. I had the good fortune to early on work with my colleague Boris Bresler who had begun a study of the strength of concrete, plain concrete under complex states of stress. He had a student who just finished a master's degree in that area, and I had a chance to examine his works. I don't remember whether I was on the committee. I was greatly interested in it because the experimental work, the interpretation of the experimental work had just barely intersected some work in mechanics that I was familiar with as a graduate student. So I joined with Boris, and we had a several year project that was very modestly funded by, I can't remember whom now, some outside agency interested in concrete. So we did a series of experiments and wrote several papers on the strength of concrete under combined stresses.

LaBerge: So where would you do the research?

Pister: The laboratory work was done in the old Engineering Materials Laboratory, which is the building now, the space which Davis Hall occupies. In fact, the old EML building was built in either the late twenties or 1930s. It was just a single-story building on the Hearst Avenue side, and that part of the building still exists today. Whereas the southern part of the building rose up to three stories, a substantial height to accommodate a huge testing machine, a tension-compression testing machine that was brought into the university largely by Dean Charles Derleth to test full-sized sections of the Bay Bridge. Charles Derleth was a very engaged well-known consultant on bridge construction. He was

involved in the Carquinez Bridge in the 1920s and both the Golden Gate and the Bay Bridge. So Derleth got this huge building built and this huge testing machine, which was one of two, there was a testing machine at Berkeley and one at Illinois. They were carbon copies. So when I went to Illinois I was quite at home to see this huge monster machine, which when loaded up to its capacity of, I think it was four million pounds or something like that, when it broke a specimen at that load, it just shook everything like an earthquake. But I was familiar with that at Berkeley. So it didn't bother me even though I was right next door to it at Illinois.

Anyway, getting back, our research was done in that old Engineering Materials Laboratory, which was very much focused on concrete because of Professor R.E. Davis, Raymond Davis, after whom the current building is named, having been involved in concrete most of his life. He was an international expert on concrete. All right. But my part was not the experimental side. I was involved in the analysis and the development of the theoretical model that we tried to fit to the experimental behavior. This work was very interesting. It connected me to the real world again. I'm pleased to say that for that work, Boris and I were awarded a medal, the only medal I ever got for research was for research on concrete.

Pister: That was the Wason Medal, which was awarded to us back in New York City, I think, in 1962.

LaBerge: This is early in your career really isn't it?

Pister: Yes.

LaBerge: I mean, weren't you young to be--

Pister: Well, yes, but I did the research when I was still an assistant professor. Right. So it was a fortunate thing that I was able to do that. Early in the 1950s, my first two graduate students worked on very theoretical kinds of problems. The first Ph.D. student that I had was Stefan Medwadowski. Steve finished his Ph.D. I think about 1955, '56, but he worked entirely on a theoretical problem and was very successful in it and went on to be a very successful consulting engineer who still, I think, has an office in San Francisco. I think I've mentioned Steve before in connection with the Keck telescope because he was the designer of the structure that supported the Keck telescope on Mauna Kea in Hawaii. This was a huge step from his Ph.D. work I might add. Several students that followed Steve also worked in the general area of the theory of elastic plates. The first of these was Ellis Dill, who had a long career at the University of Washington, followed by an equally long term as Dean of Engineering at Rutgers University, where he is still active, but not as a dean. Ellis worked on vibration of continuous plate systems and he was the first of my students to utilize a computer in his work. As I recall he had to go up to LBL to use their machine to deal with the complex calculations involved in his work.

LaBerge: For the record would you say what a plate is?

Pister: Plates are structural elements whose form is such that their thickness is very small compared to their lateral dimensions. There is a multitude of applications in construction and fabrication of all sorts of structures and machines.

I think the next one that worked in this area was Stanley Dong who worked with me. I can't remember exactly what our first papers were on. I think they were on layered plates and Stanley was working on anisotropic plates, and we published one or two papers about that subject. Stanley, after spending time at Aerojet in Sacramento, joined the faculty of UCLA and ultimately became chairman of the Department of Civil Engineering at UCLA. He's now retired.

LaBerge: Your students went on to do good things.

Pister: Yes. Most all these early students, which were in my first group of Ph.D. students, went on to an academic career. Steve was the exception. So this carried me pretty much through the 1950s. I remember learning from one of my senior colleagues who had been on my tenure promotion committee that when my tenure case came up in 1957, there was a concern expressed--something like all Pister does is sit in a corner and play with differential equations. [laughter] It was a characterization of my work which seemed to be overly scientific and not connected with the real world. But I guess I had more Ph.D. students working with me than other colleagues in the department at that time, since my work was outside the realm of traditional civil engineering, which did not then enjoy much external support.

Viscoelasticity Work re: Rockets

Pister: In 1959 when I took my first sabbatical I think I mentioned I went to Caltech for a couple of weeks at the invitation of Professor Max Williams. He was an aeronautical engineer at Caltech, and that's where I got interested in viscoelasticity. Up until then I'd been strictly interested in classical elasticity, which is an elegant mathematical construct that goes back to the nineteenth century. The mathematical theory of elasticity was essentially given its form by French applied mathematicians like Cauchy and St. Venant. The earliest treatise in this field was written by an Englishman, Love. So it was this work that I concentrated on initially.

But then having visited Max Williams at Caltech, Max was beginning to get engaged in research in the field of viscoelasticity primarily motivated by his interest in trying to characterize the solid fuel for rocket engines, solid propellants they were called. Solid propellants at this point were just beginning to be introduced into our missile system ultimately with an eye to placing these rockets on submarines. It would be impossible to put a liquid fuel rocket on a submarine because of the complexity of the fuel and the transfer problem and all that. So you have to have something that would stay with the missile. A viscoelastic material is a material that is more complex in its behavior in that if you pull on it, it may initially behave like an elastic material, that is it will stretch, but if you keep the load on it unlike an elastic material, it will keep stretching. This phenomenon is called creep.

LaBerge: A little like an Ace bandage?

Pister: Well, an Ace bandage should be pretty much elastic. It should not creep. Viscoelastic materials also exhibit another interesting phenomenon.

[33B]

Solid Propellants and Related Work with Carl Monismith

Pister: If you say take a bar and subject it to a displacement, that is, if you move one end of the bar relative to the other and hold it there, over time the material will relax, in other words it will relieve the stress that was induced by this initial displacement. That's called relaxation as opposed to creep. So both of these phenomena are very important in a number of applications well beyond solid propellants, as we'll see.

So, although I got that interest in solid propellants, an early expression of that interest, I think, came not in solid propellants but in working with my colleague in civil engineering, Carl Monismith. Carl was working for the California Research Corporation and the Asphalt Institute on the behavior of asphaltic pavements and asphaltic pavement material, which is essentially a viscoelastic binder with elastic inclusions, mainly gravel. So you mix up the gravel with this asphaltic binder, and you have now a complex viscoelastic material because the asphaltic material behaves viscoelastically. So he was aware of the work that I was doing in viscoelasticity, and we teamed up together and I think we had one or two doctoral students that worked in this pavement area, quite different from solid propellants.

The first student that I had in this area was Russ Westmann. Russell finished his Ph.D., I think about 1962, and he went on to UCLA also. I think he spent a year abroad in Scotland as a post-doctoral fellow working with a very well-known applied mathematician in Glasgow and then went to Caltech and to UCLA and ultimately became associate dean of engineering at UCLA before he retired. So this work really complemented the other work that I was doing in solid propellants. The theory was the same. The application, the structural element, was quite different.

The work in solid propellants really was a substantial part of my research program. I had first a grant from the Aerojet Corporation, which was located in Sacramento out in Folsom. It was built in the old spoil area of the gold mining, the dredging up there with all those piles of rocks. They built the Aerojet plant amidst the rockpiles. The work was supported by Aerojet in the amount of, I think, $25,000. It supported four Ph.D. students and myself, and we put out an inch-and-a-half-thick report, and that report essentially contained the dissertations of four people. That was the gang that I had. All four of them turned out to be UC faculty members at Davis, Berkeley and UCLA. I have a commencement picture of that group.

LaBerge: That'd be great to include.

Pister: I should, remind me to put that in because I have the commencement picture when they received their Ph.D.s, and then I have a picture taken at the retirement of Professor Dong at UCLA when the same group got together again. We have the before and after pictures from 1962 and 1995.

LaBerge: So tell me about the four people again.

Pister: It was Stanley Dong at UCLA, Russ Westmann at UCLA, Bob Taylor at Berkeley, and Leonard Herrmann at Davis. The first picture was taken up in Memorial Stadium when we still had the commencement up at the stadium and the second one at the Faculty Club at UCLA.

First Funding from U.S. Air Force

LaBerge: Do you consider them your academic children and grandchildren?

Pister: Well, that group particularly since they were the second wave. I had these first two that I mentioned. I had a third student Calvin Young who finished after Ellis Dill. Calvin was an outlier in the sense that he did again a very theoretical study in elasticity and to the best of my knowledge Calvin never really practiced engineering. I think he went into farming or something like that. He was just not one of the typical students that I had. He was a bright fellow, but he marched to a different drummer. I totally lost touch with Calvin. To add some kind of credibility to what I just said, I think at one time Calvin was interviewed for a job up at Aerojet because two of my students, Leonard Herrmann and Stan Dong, were working at Aerojet after they finished. By the way, they started at salaries far higher than I was getting at Berkeley in those days. [laughter] There was another student there from my colleague Ray Clough, Ed Wilson who was really a pioneer in the use of computers in structural engineering. Anyway the three of them were there, and they all knew Calvin. I think Calvin interviewed for a job there and then ultimately turned it down and said well, he didn't know, he couldn't bring his horse along if he moved to Sacramento.[laughter] So that kind of explains Calvin's strange attitude toward life. A different attitude, I won't call it strange, but different from the rest of us.

At the same time there was another connection back to plates and again this was Max Williams' doing. I remember meeting Max in Washington, D.C. I think we were at a solid propellant meeting of some kind because there were annual meetings of all the people working in solid propellants. It was a joint army-navy-air force task force on solid propellants, JANAF. We met every year to give papers and basically try to push the state of the art, the analysis and design of solid rocket motors. Anyway, so we were in Washington, D.C. I remember meeting Max and taking a plane to Dayton, Ohio, to the Wright Patterson Air Force Base. I still remember it was an old Constellation, the twin-tailed Constellations that we flew down on. He was a great TWA person, and that was TWA's plane. There, he and I spent a day with engineers at Wright Patterson, and they were interested in laminated plates, layered plates that were designed for different purposes. In particular they were interested in trying to develop a laminated plate that would perhaps be more resistant to the propagation of cracks because cracks are big problems in the aerospace industry. If you can arrest cracks, even if they start, so much the better.

So we kind of wrote a white paper on this issue while we were there, and at that point I was somewhat naïve about how research grants and contracts went. I learned later on that this was a great way to basically describe the research area that ought to be worked on in your own terms and then to be able to respond to the request for proposals after they came out. I had the opportunity to do that a number of times later on in my life. So after having

visited them, lo and behold, there was a request for proposal from Wright Patterson Air Force Base, and surprise, the proposal from Berkeley that I wrote was funded. So this was my first air force funding.

Dan Mote, as a Student and a Colleague

Pister: I worked with Bob Taylor and Stan Dong. They split their time on this and propellants with one other colleague. An interesting sidenote here is that there was an experimental phase to that program as well. I was doing the theoretical work on anisotropic laminated plates with my graduate students. At the same time I needed to do some experiments to actually build--the way we built a laminated plate was to take aluminum foil and glue it one layer on top of another and press it at high temperature and high pressure and make a rigid plate out of it. And I worked with Joe Frisch who was a colleague in mechanical engineering, and we needed to have a graduate student to work with Joe. So the person that I hired for that position was Daniel Mote. Dan was a graduate student in mechanical engineering. He had taken one or two of my courses in civil engineering. He seemed like a good prospect. So Dan did the experimental work and I never let him forget that. [laughter]

LaBerge: Maybe we should say for the tape what he is now doing.

Pister: Dan is now President of the University of Maryland at College Park.

Well, that was the beginning of our association. He had been a student, but now he worked for me as a research assistant. I later went to the bachelor party for his wedding. I remember that and Dan left Berkeley and went to Carnegie Mellon University for his Ph.D. Then he came back to Berkeley on the faculty in mechanical engineering, and when I was dean, Dan was a department chairman in mechanical engineering, a very unruly one I might add. [laughter] But he was kind of the Khruschev type of department chairman who came in and took his shoe off and beat it on the table. One time I think I even told him, "Dan, you should know me well enough to know that's not a good way to get my attention to behave that way." He was, I think, understandably anxious for mechanical engineering to grow. There were huge pressures on me from electrical engineering and computer sciences who had by far the highest work load of any department, and their field was exploding all the time in computer science and microelectronics, and I had to give them resources. So Dan felt left out.

Anyway, that's not the end of the Dan Mote story because in the fall of 1990 when I was in my last year at Berkeley I mentioned that Chancellor Tien had asked me to consider being a vice chancellor for university relations. In fact, he pursued me relentlessly for it. When I finally made the decision not to accept that position and to go to UC Santa Cruz, I remember talking to Chang-Lin suggesting that Dan Mote was really looking for a new job and that I thought that Dan would be a very good vice chancellor for university relations. Well, Dan, I think, fortunately for Berkeley and for himself, was appointed to that position. He was Chang-Lin's vice chancellor and also was vice chancellor for Bob Berdahl until an opportunity came up for him. I might say when I was still at Santa Cruz, I think Dan was being considered for some other jobs. I know he was a candidate for the

Georgia Tech position, the president of Georgia Tech, a position that I think I mentioned I was asked to put my name in candidacy for and turned it down. Dan was, I think, the number two choice for Georgia Tech. They picked a Berkeley Ph.D. who had been at Stanford and then at Virginia Tech, a great guy who was a Georgia Tech alum. So he was probably thought to be a better fit since he was an alumnus of Georgia Tech.

LaBerge: What was his name?

Pister: Wayne Clough. In fact he's still president there, great guy, civil engineer. Anyway, so Dan had talked to me before and expressed his kind of restlessness about where he was and desire to go on to a new position. I remember talking to him from my study at University House at Santa Cruz about this position. Well, I don't think I was on the list of references for the Maryland position, but as the record shows, Dan was chosen to be president of the University of Maryland at College Park. The chancellor is like in the California state system, the chancellor is for the state of Maryland, University of Maryland system. So he's president of the University of Maryland and a very successful one. Of course, this year his basketball team was the NCAA champion. So that will make Dan very, very happy.

LaBerge: But you gave him his start in life.

Pister: Well, I think I had something to do with it, and I hope my relationship to him when he was department chairman and I was dean helped temper his interaction with his subordinates while he's president. He replaced a very fine person there, his predecessor William E. Kirwin. Kirwin was at Maryland. I met him when I, I think I mentioned--

LaBerge: You mentioned him--maybe yesterday.

Pister: He went to Ohio State, and now he's going back to Maryland to be chancellor of the Maryland system.

LaBerge: That was a diversion on Dan Mote because I knew just your and my nonverbal signal wasn't going to get through to the researchers.

Miller Institute Professorship: Nonlinear Work

Pister: So we're moving now again in the early years of my career here at Berkeley. I think the next important step in the progression of my research program was afforded me in 1962. In that academic year '62-'63, I was appointed a Miller Research Professor in the Miller Institute for basic research in science. I think I was one of the early engineering faculty members. Certainly, I was the first in my department to be appointed to a professorship in the Miller Institute. Just for the record, the Miller Institute is a consequence of a gift, an endowment funded by Adolph C. and Mary Sprague Miller to establish an institute that would allow faculty from Berkeley to spend a year freed of all other academic responsibilities to concentrate just on research. Subsequently, there is a parallel program to bring in Miller Institute fellows from other campuses. It's a wonderful program. So I

had a year's leave essentially, a non-sabbatical year. The institute either paid my salary or paid my department an equivalent amount.

LaBerge: What did you work on?

Pister: Well, I basically did a lot of thinking. The appointment gave me a chance to kind of rebuild my knowledge base. You need to replenish the foundations that you draw on when you do research.

LaBerge: Recharge your batteries?

Pister: Yes. It gives one the chance to sit back and step away from the daily activities you have been involved in and kind of reset your priorities, as well as to get new tools, and to reflect upon where you have been and where you are going. This led subsequently to a grant that I was able to get from the Army Research Office. I received a grant to work on the behavior of nonlinear solids, up until now I had worked on linear problems. For the layman the difference between linear and nonlinear is the difference between night and day when you're trying to see something. Linear problems are susceptible of very structured, very fundamental kinds of analysis. Whereas things that are nonlinear are substantially more complex in a whole variety of ways. There's no standard methodology available to deal with phenomena that are nonlinear. The difference between linear and nonlinearity is simply that of proportionality. In the linear world, if something happens, you want it to happen faster, you just multiply it by a number, and it responds by that number faster. There's an element of proportionality to everything linear. While for nonlinear this is not true. Most of the world is nonlinear, but we tend to approximate physical reality with linear models.

So this work I remember supported a student named Jim Evans. Jim was Welsh, educated first in Wales. He did his Ph.D. with me, and Jim ultimately went up to the University of Washington. He retired early from the University of Washington and he and his wife lived on an island out in Puget Sound, and they opened a pub on the island. In fact, in the small world of academic life--when I was chancellor, I guess the last year I was chancellor at Santa Cruz, out of the blue I got communication from Jim Evans saying we're coming down to attend the graduation of our daughter who is one of your students at Santa Cruz. So by gosh out of the blue, he and his wife came down, and I, just by coincidence presided at the commencement--

LaBerge: Of that college.

Pister: Of that college at Santa Cruz. So I had a chance to shake hands and congratulate the young lady, and then later that day we had dinner together in downtown Santa Cruz. It was a wonderful opportunity to get together. Jim and his wife also attended my fiftieth anniversary celebration at the Claremont Hotel. I got the chance to see him again. Anyway, that was an entrée into a new area of research.

Then I had the good fortune about the same time to inherit a graduate student named John Baylor. I had a colleague by the name of Jerry Wempner who came actually in 1965 and filled in for me when I was on sabbatical. He spent a year here. He was at the University of Arizona at the time I believe. Jerry brought with him a graduate student from Arizona named John Baylor. John was a brilliant guy, and they were doing work in an area called

sandwich plates and shells. Sandwich plates and shells, as the name suggests, is simply a plate or shell made by layering dissimilar materials. You put a hunk of something in between two things that are the same. Lots of applications, for a long time skis were made that way. I don't know if they make skis that way now. It's a way to economize on weight. So aerospace had many applications of sandwich elements. John worked one summer for the Jet Propulsion Lab down in Pasadena and of course, that lab is a NASA contractor. Well, Jerry left, and John decided to stay at Berkeley as a graduate student, and came back after the summer with a research program all funded. He brought it back himself. So John worked with me. He worked on a complex theory of sandwich shells, and there were absolutely so many pages of equations that I can't believe that it could ever have been used for anything. He was an industrious guy. He had very poor vision, very, very thick glasses, and he'd have to get very close to the work, but he just turned out reams of work. Anyway, he did a very good, very high quality piece of research. John went back to New York City and joined a firm there, a very well-known firm, Weidlinger Associates, that I think I've perhaps--

LaBerge: I think you've mentioned already. I remember writing the name.

Pister: Mentioned already. Yes. Paul Weidlinger was a very competent structural engineer. I think I mentioned it in connection with my colleague Mel Baron. Anyway John went to work with them, and I think he's still there. So that is another direction of work. I continued to work on solid propellants. I failed to mention one of my earlier students Bob Taylor who did his Ph.D. with me as part of that famous group of four. Well, as I say, he joined the Berkeley faculty, he and I continued to work together in the solid propellant field, basically developing a numerical analysis technique to analyze the complex thermo-mechanical behavior of solid propellants. In the mid-sixties Bob really took some time out to learn how to program computers, digital computers, and became really very, very sophisticated over the years in their use, and recently received one of the most famous awards, the Von Neumann Award. He received this very prestigious award, and it goes back to the middle sixties when he started to learn how to use the computer.

[34A]

Finite Element Method

LaBerge: Talking about computers--I've read that that was one of your specialties, using interactive computer-aided design.

Pister: That's much later.

LaBerge: Is that coming later?

Pister: That's much later, much later in my career. At this point the analysis of these complex solid rocket motors was done with great difficulty because the ability to do the mechanical analysis, that is to determine what the stresses and the deformations of these huge motors would be over time, was quite limited. The tools that were available were still very crude. We were essentially stuck with doing idealized configurations, idealized

geometry and loading that one could analyze using purely analytical methods. The numerical analysis of these problems was still inaccessible. All of this changed in this period of time, in the 1960s by virtue, I think it is perhaps important to mention this, by virtue of the emergence of a whole new computational methodology called the finite element method.

That method had several origins. But certainly one of the pioneers of this methodology was my colleague Ray Clough who had spent a summer at Boeing Aircraft in Seattle. There with a couple of colleagues Ray wrote one of the earliest papers that described this new methodology for analyzing complex problems like this, a methodology that prior to the advent of digital computers wouldn't have made any sense because it involved the solution of a very large number of simultaneous equations. So Ray was, along with his students, moving along developing this methodology and making it accessible to colleagues, and Bob Taylor was one of those colleagues early on that got into this area. I never really became an accomplished finite element program developer. I used the programs, but I wasn't one of the developers. I helped to develop the companion methodologies that were necessary, how to model materials for use in connection with these programs. My students certainly were very competent in the use of these programs and helped develop special kinds of programs in this area, but I myself was at the edge of this technology. I understood it, but I didn't help invent it or develop it.

Anyway this was going along, and we had a number of projects, primarily work for the navy, different facilities of the navy. We worked with the Stanford Research Institute in joint projects. I had work from the Lockheed Missile and Space Division and a companion part of Lockheed called Grand Central Rocket at one time, and then it became Lockheed Propulsion Company. They were down in Redlands. I used to take trips down there to talk. So anyway, I had an active group along with Bob Taylor continuing to work in this area.

Milestone Address on Highway Pavement Design and Maintenance

Pister: This went basically through the 1960s. I hadn't completely given up my interest, my broader interest in viscoelasticity. That's reflected in the fact that in 1970 I was asked to take part in a meeting in Austin, Texas, sponsored by the Highway Research Board, which is an entity in the National Research Council of the National Academies. I was asked to give the keynote address for that meeting. The reason I was asked is that earlier on a company here in Oakland--well, a number of my colleagues were in this company conducting research in the general area of design of pavements and the maintenance of pavements and--

LaBerge: What was the company?

Pister: You know I'm trying, I think it was Materials Research, Incorporated, in Oakland. Yes. They'd asked me to come in and critique the way that they were trying to understand the complex process of the design and maintenance of highway pavements. I did that, and I so shook up the procedure they were using or I should say, what I did was say, look you need a more unifying methodology for dealing with this problem. I remember just

stepping up and sketching out a structure for this down--. It was in a motel on University Avenue; it's still there. Spent a Saturday down there. But anyway, they were so impressed that somehow I found myself giving this keynote address.

Well, I've looked at that address since then, and I can see it was, I think, an important step that was a bit ahead of its time when I gave the paper. But it laid down structure first, and then a methodology, for looking at the design and the maintenance of a system, in this case the pavement system, in a very rational way. I was really pleased years later when one of the principals in that company, Fred Finn, whose friendship dates back to 1945 when I appeared on the island of Okinawa, and I announced that I was going to be living in his tent, cited my work.

LaBerge: Oh, that's right. Now I remember Fred Finn.

Pister: So you can see we go back a long ways. Anyway Fred, ultimately became a member of the National Academy of Engineering on the basis of his work in the field of highway pavements. He wrote a historical survey paper on this whole area of design and maintenance of pavements. I was really pleased and honored by the fact that he called my address at that highway research meeting a milestone, a turning point in the whole area of highway pavement design and maintenance.

LaBerge: Do you still have a copy of it?

Pister: Oh yes. Sure. I have copies of all the papers. I was not in that field. I was an outsider, but I was able to help them understand what they were trying to do by virtue of being an outsider, I think, and bringing a different perspective. So that was a rewarding experience.

LaBerge: Can you describe what change you proposed or how it changed?

Pister: What I did was to look at the problem of design and maintenance as essentially, I guess what one would call, a nonlinear programming problem. That is, you have certain objectives that you want to accomplish, and you have certain constraints as to what you can do and what you can't do. What you try to do is, as you move through the process of construction and then subsequent maintenance, you try to devise ways that optimally sustain or improve the performance of the system. You have to understand what you mean by performance, which would be the absence of cracks or settlement or things like that that are of mechanical origin. You try to develop a way to intervene, in the language of this methodology, it's called the controls that you place on the system, the interventions. You try to do that in a way that somehow maximizes the success of the system that you're dealing with. This was a perspective that was well known in lots of other fields, but had never been applied in this particular field of technology. That's all I did. It was a transfer of technology, which is a typical kind of thing that goes on all the time in the world. People work in one area and have a particular application in mind, unaware of the fact that there are other areas where that could be applied successfully, and the people in these other areas are unaware that people are doing this somewhere else.

Integration of Knowledge as Important as Discovery of New Knowledge

Pister: I have noted one of the most interesting and rewarding aspects of an academic life, which I experienced over and over again when I was able to take something from one area and move it over and productively utilize it somewhere else. That expresses the sense of accomplishment and the good feeling that I got when I could take, in teaching a course, a lot of different ideas or a lot of different results, different kinds of problems and say, "Hey, these seemingly very disparate problems and the solutions to these problems can all be brought into a common group with a common methodology so you can understand them." I called that putting these problems over a common denominator. The sense of satisfaction in doing that I found to be enormous. That was one of the greatest rewards in my research career when I could do that in teaching or in research. It's a synthetic as opposed to an analytic approach to one's work. You can bring things together rather than tear them apart. I think lots of folks feel the same way.

It cuts back to my comments I made in the last session on the different kinds of scholarship. It's all too easy to say, "Well, research is only discovering new knowledge." I think the integration of knowledge is every bit as important as the discovery of new knowledge, and that's what we're talking about here, producing new insights through synthesis of knowledge. It could be integration of new or old knowledge. I didn't say this in our last session but because we're talking about research perhaps it's not inappropriate here. One of the, I think, unfortunate consequences of the exaggerated importance placed on research, not only in the University of California but nationwide or worldwide, is that there's an incessant pressure on individuals to publish things for the record before their time. There's a lot of work published that really is just a small step. It's incomplete. It's not conclusive. It's premature in other words. Perhaps a more damning characteristic is that the pressure produces what I would call incredible amounts of trivial research.

LaBerge: Just to get it out--

Pister: Just to get it out the door.

LaBerge: And say, "I published it."

Pister: I've done that problem. The amount of stuff that's produced now, the number of journals that have come into being is just incredible. The quantification of research impact through the funding of publications or weighing the number of papers is not helpful. I'm only trying to explain why I think the integration of knowledge is important and perhaps it explains why I felt rewarded when I could do these things. I remember a course that I taught using a textbook which had a lot of chapters that were really disconnected, but I was able to say, well, these chapters all fit together if you look at them in this way. One approach is sufficient. I felt that was just as important, just as rewarding, as writing a paper that would come out of each of these chapters and not be connected.

Going back to the chronology of my research life, I think it must have been in the early seventies probably that I think I went through a period of my life where I was searching for direction. You begin to wonder what you're doing and why you're doing it. I think I went through this, whether or not it was created by the unrest on the campus, the Free Speech Movement and its consequences of that extended over into the seventies--

LaBerge: The war.

Looking for Applications in Other Fields

Pister: The war certainly. Whether it was just the fact that I was about forty-five years old and went through a change of life of some kind, I don't know. Anyway, whatever the reason, I really kind of lost interest in what I'd been doing and started to look around for other things. I remember beginning to start looking for the applications outside my field, to look for applications in biology and medicine. The medical profession doesn't know anything about materials. I actually took the time to sit in on a two-quarter course in biophysics on the campus taught by a long-time friend Howard Mel. In sitting through that course I had the opportunity to become acquainted with the work of a man by the name of Aaron Kachalsky. Kachalsky had written a book in this area. He was a very, very well-known scientist, and regrettably was one of the victims of a terrorist bombing in Tel Aviv at the airport in 1972. I also became acquainted with the work of Richard Bellman. I think I had mentioned him already in connection with Nestor Distefano. Nestor was a marvelously agile intellectual who had an interest in biomechanics. So we started doing some work together. We wrote one or two papers together using ideas from Bellman's work. I received a grant from the campus, a modest grant that enabled me to support a graduate student who worked in this area, Frank Robl. Anyway, Frank Robl did his dissertation in this field. Frank ultimately didn't follow that work. He went to work for Boeing. So that was a kind of a deviation from my earlier students' choices. About that time there were a couple of other interjections. One, I spent the sabbatical year in Ireland. I think I mentioned that. That was a very productive year. I was able to spend a lot of time thinking about things, really going back rediscovering the foundations of the field. I had the benefit of studying two really important volumes that were written by Clifford Truesdell. These were very, very fundamental historical views of evolution of the field that I worked in. As a consequence I came back with kind of a fresh interest.

The Identification Problem and Systems Approach

LaBerge: From Ireland.

Pister: From that sabbatical year, and I really became interested in a class of problems which I didn't know how to characterize. I had been reading a paper written some years before by a colleague in electrical engineering, Lotfi Zadeh. Lotfi wrote a paper back in the early sixties, and so I remember--I knew Lotfi by virtue of having served on a committee with him in the College of Engineering. He was department chairman of Electrical Engineering and Computer Sciences. I explained what I was trying to do in trying to understand how to model material mechanical behavior. Lotfi said, "What you're trying to do is, you're trying to solve an identification problem." In a sense, I had a Sixty-four Question, what was that game show called?

LaBerge: The $64,000 Question.

Pister: No, before that, the Sixty-four Questions. You had to discover within sixty-four questions what the object was. Anyway the identification problem was to observe the behavior of deformation of the material, changing its shape and trying to observe from the behavior what were the intrinsic structures that would produce that process. If you know the response and you know the causal factors, what is it that transfers the input to the output. Causality produces an outcome. It's the connecting of outcome with causality through a process called the identification of the material constitutive properties.

LaBerge: Yes, it is.

Pister: Interestingly enough I think Lotfi was the first person to give the identification problem that name in the literature.

Well, I guess I can close this kind of chapter, when I was looking at what I would call systems approach, is what I used in the pavement paper. I used a more systems approach in looking at the identification problem. Nestor Distefano was very much a supporter of what I was doing and a collaborator and helped me understand this.

NATO Advanced Study Institute, Lisbon

[34B]

LaBerge: Okay. Looking at the structure of the field--

Pister: I had a really splendid opportunity to take part, and I think I mentioned this earlier on, in a NATO Advanced Study Institute in Lisbon. There I took part in a two-week institute for European, I think exclusively European engineers and scientists; my part was to give a series of lectures on the foundations of mechanics.

LaBerge: How did it happen it was all European except for you?

Pister: The students were all European. The lecturers were a mixture of mostly U.S. people. My friend Ray Clough, I believe, was part of it. A colleague from University of Texas, Tinsley Oden, was a lecturer, and then a very distinguished man from Great Britain, Oleg Zinkiewicz. I took part as one of the lecturers, and that gave me a good chance to really put together a lot of things that I had been working on in my classwork and research here. It's published in proceedings of that institute.

The next thing that happened, and in looking back, I don't know what made me take this step. Maybe if I talk to my colleagues, I could figure out what did it. I was at the time chairman of the Division of Structural Engineering and Structural Mechanics in the Department of Civil Engineering. I think I've talked about that. My chairmanship was a bit uncertain since I had a bad reputation in the chancellor's office at the time at least. I was complaining that division chairmen ought to get some kind of summer stipend as well. At any rate, it was kind of a mixed-up period in my life. I was starting to take Italian at the same time and-- [laughter]

Earthquake Engineering Research

LaBerge: That's totally out of your field.

Pister: Out of my field and also the same time this '71-'72 year, I was on the Committee on Educational Policy on the Berkeley campus. I mention these things because there are a lot of consequences downstream from that year. So in the midst of all this, for reasons I can't figure out again, I said, "I think I ought to really start working on earthquake engineering problems."

LaBerge: Just out of the blue or sort of. I mean, it's not totally out of the blue. It's in your field.

Pister: It must've been that the work that I had done on systems, I have not talked about that a lot, but this came out of studies that I was doing during my sabbatical and particularly influenced by Nestor Distefano. I really began to think about other areas of application and the whole issue of looking at the design of structures subjected to earthquakes started to be of interest to me. Of course, there was a huge effort already going here at Berkeley.

In fact next month I'm taking part in a symposium honoring two of my colleagues, Ray Clough and Joe Penzien, who have been international authorities and honorees in this field. They were responsible, Joe particularly was responsible for starting the Earthquake Engineering Research Center in Richmond. I'm in the midst right now of preparing my remarks for the banquet that will honor them, going over their lives and the things that aren't in their bio-bibs. That connects.

Anyway Joe was the director of the Earthquake Engineering Research Center when I first got the idea to start working. He was kind enough to give me funds from his discretionary budget to support a single graduate student. That graduate student's name was Debu Ray. Debu was a Bengali. So Debu was the first of a whole line of students that I had that started to work on seismic problems in structural engineering. About 1970--my notes say in '72, Joe gave me this first grant to get my research started. In 1972, I received my first of a continuing series of grants from the National Science Foundation in this field. The program director of the National Science Foundation was a Berkeley Ph.D. who worked with Joe Penzien. His name was Chi Liu. Chi was my program officer over this period, which lasted I don't remember, at least ten or more years. I had continuous support from him. I'll say more about that subsequently.

Collaboration with Debu Ray and Lucien Polak

Pister: Anyway, Debu did the first Ph.D. with me. I think it's important here also to mention that Debu, and I'm not sure what motivated him to do this, but Debu became a student of my colleague in electrical engineering Lucien Polak. Lucien was an expert in optimization theory. By optimization theory, one simply means that you try to design a system, or a process that a system has to deliver, in such a way that by some measure its performance is the best that can be accomplished with the constraints that you have to work with. He had developed the mathematical theory of optimization and written texts in the field and

gave a two-term graduate course in the field. So to use a particular term, Debu became a vector that transferred knowledge from Lucien to me and back and forth. Lucien learned something about earthquake engineering as a result. I want to develop this further as we go along too. That started way back in 1971 with that first grant from Joe Penzien.

When I look back at this period, I had not given up completely in the mechanics field because in that academic year '73-'74 I had a sabbatical leave at the University of Stuttgart. I well remember sitting in my office at the Institute for Aerospace Structures, actually it's called ISD at Stuttgart. I read the early drafts of Debu Ray's dissertation while I was sitting there. But at the same time I was there, I was working very hard on the identification problem, returning now to my early roots on the behavior of concrete, and I worked there with a colleague Kaspar Willam, who had been a Ph.D. student at Berkeley. He was an Austrian, but came to Berkeley, did his Ph.D. under my colleague Professor Alex Scordelis. So Kaspar had gone back to join this institute, and he and I collaborated along with the institute director, John Argyris, and worked on the modeling of concrete. I was using my identification work to inform that and the work that I had done in mechanics of solids here. So that was a parallel stream at that time.

A very interesting thing happened at this period of time, because the Stuttgart Institute had early on become a pioneer in the use of the digital computer in structural analysis. Professor Argyris created a very, very powerful group there in computational methods for solids and structures. He had one of the most powerful computers on the European continent. It was an old UNIVAC. I can't remember the model, but it was powerful, but you had to feed it with boxes of IBM punch cards. That mode was still in vogue there in the early 1970s. But he was well known for that, so that there was a lot of emphasis on computation. I was not involved in it. I was involved in the modeling of materials that had to be developed to put in those computational procedures. Well, Debu Ray finished his dissertation during this period and left the university.

The other thing is that the collaboration in the modeling of concrete with Willam and Argyris produced a paper, which I presented at an international symposium in Mexico City subsequently. I think that would've been later in the mid-seventies. I don't remember the exact time I went down there, but that was, I thought, a very useful collaboration that was born of my sabbatical year there.

The ESVAX and UNIX in Cory Hall

LaBerge: And we touched a little bit on that, when we were into the travelogue section.

Pister: Yes, we did because I returned there to Stuttgart in 1978, and I think I've talked a little bit about that. A very important thing happened in my association there at Stuttgart because Professor Polak and I were continuing to collaborate. Debu was just the first of a number of students-- I'll talk more about them subsequently--that worked in this field of optimization. I had the good fortune to talk at some length with a particular staff member at the institute, Ernst Schrem by name. Ernst was an expert in computational architecture and computational machinery.

Lucien and I had begun to consider the importance of acquiring our own computer for our work and create a group between electrical engineering and structural engineering that was focused on using optimization theory either in design of electrical or in structural systems. So we were thinking about going to the National Science Foundation to get an equipment grant for such a computer. Well, at that time there were a couple of different alternatives. These were not the huge mainframes. This was just at the dawn of the appearance of a computer called a mini-computer. It didn't require a huge room. You still had to put it in a room. It was a big, big box, but it was nothing of the size of the original IBMs or the Control Data Corporation computers that we had in the central computer facility on the campus here. These were things that you could distribute around the campus. They were very much faster. There was a whole new generation of microprocessors that made these mini-computers very, very appealing.

Well, thanks to Ernst Schrem, and not entirely his doing, along with other input we got, we made the right choice. We chose to go with the Digital Equipment Corporation rather than with a company called Prime. We, Lucien and I, made a proposal to the National Science Foundation, which itself was a problem because we were asking two different divisions of the National Science Foundation, electrical engineering and civil engineering, to support an equipment grant, and you can imagine the complexity of that bureaucratic issue. It's just like having two departments of the campus work together on something. There it's even worse because of the bureaucracy of a federal agency. That even exceeds the bureaucracy of the university. [laughter] Anyway, we were successful in getting an equipment grant from the National Science Foundation, and we were able to buy a VAX 11-780. That was the model, and we called it the ESVAX. That was its call name, ESVAX. That's literally electrical engineering and structures.

LaBerge: Right. You just gave it a name.

Pister: So we had the ESVAX group, and I think we were the second ESVAX on the campus. I don't remember who had the first one, but we were certainly one of the earliest to have that kind of mini-computer. I think it cost something like $75,000. It was a significant step beyond where we were, because the big thing there with the ESVAX was that you didn't take a bunch of IBM cards in a box and stick them in the computer. This was the first computer that our students had for which you could sit down in front of a terminal, a dumb terminal as it was called, with a keyboard. You could input your program interactively on the computer screen and get results back on the computer screen. That was an incredible breakthrough. I was the first one in civil engineering to have a computer terminal that I could look at and watch what it was doing. Also that was the birth of my engagement with email.

LaBerge: That's very early.

Pister: As I look back on this, in those days, the network that Berkeley was connected to was the Arpanet and the Arpanet existed long before the Internet came along. The Arpanet was the product of ARPA, the Advanced Research Projects Agency of the federal Department of Defense and interestingly enough, I think one of its parents was someone at UCLA. It was designed and implemented by the Department of Defense as a backup communication system in the event that in the Cold War our telephone system was rendered inoperable. So DOD wanted another way. Initially ARPA connected military facilities and a number of universities that were engaged in research in computer science.

Berkeley was one of the nodes. The existence of a computer and a network is only a step. You have to have an operating system that basically enables program applications to be run on a system.

Once again Berkeley, and I mention this because it connects very much to what happened to my own research group, Berkeley, by virtue of almost the accident of a Bell Lab employee spending a year or summer here, Ken Thompson was his name--Ken was the father of the UNIX operating system. Ken came here and essentially his presence, I think, was the genesis of a long and very influential research project here called the Berkeley Software Distribution System. Berkeley developed a version of UNIX, BSD UNIX that pretty much became the standard operating system for the Arpanet, and at one time AT&T came out with an AT&T UNIX. There were intellectual property and licensing issues that got in the way from time to time, but anyway for years BSD UNIX was the standard that all the research universities were using.

This was long before windows appeared, of course. There were no PCs yet on the scene. But I mention this because we were fortunate to get a VAX machine. We put UNIX up on the machine. There was a competing operating system called VMS that DEC had, the Digital Equipment people had. But it didn't survive. But UNIX did survive, and in fact it's still alive today. So my students learned how to operate in the UNIX environment, as did I. That had tremendous importance because it enabled us to communicate across the Arpanet with other people, and it enabled my students to really develop programs that were very robust because UNIX could be mounted on any kind of a computer architecture.

The interesting thing that grew out of this was that the group that Lucien and I were responsible for was not a formal group in any sense, but we shared the computer resource. My students took his optimization courses, and I served on dissertation committees for his students, and there was a real symbiotic consequence. We hadn't even known each other except casually before then, and he and I became not only research associates, but we became good friends. He and I went cross-country skiing a couple of times together up in our place in the Sierra. So it was a very fruitful association, and I didn't stop to count how many of my students from the seventies and eighties were of consequence of that group.

In passing I should mention the computer was situated over in Cory Hall, and there were two rooms there. There was a room where the computer was and a room with a number of terminals that were connected to the computer. My students and his students used that room. I think I might have mentioned this. There was a tragedy associated with that room when one of his students picked up a package that had been placed there by that mad bomber [Ted] Kaczynski.

LaBerge: Yes.

Pister: This student was one of the victims of that mad bomber from Colorado who I remember had a strange career. He had been here as a math professor, and then he was anti-society. But anyway this student had the great misfortune of moving that package.

LaBerge: Who was it addressed to?

Pister: It was just a package that was left there. The student that picked it up, this is already on the record, was a captain in the air force, and it finished his career in the air force, it so badly injured his hand and arm. But getting back to the research, that association that started with Debu Ray and my getting a grant from Joe Penzien as the director of the earthquake center, and then the sustained support I had from the National Science Foundation, really set the course pretty much for my research program for the rest of the time I was at Berkeley although there are some other things I could say. But perhaps we ought to stop here today and pick those up next time.

Childhood Anecdote: Train to Stockton

[Interview 18: April 29, 2002] ## [35A]

LaBerge: Well, today we were going to start with two anecdotes. One had to do with your childhood that has come to light.

Pister: Right. I have no idea why I remembered this, but I did. Back in the time when I would expect in the late nineteenth century, would have been when my--

LaBerge: This is your childhood? [laughter]

Pister: When my grandfather, Stark Smith, had Windsor Farm. The Southern Pacific wanted to put a right of way through his property. In granting the right of way through his property--this by the way was not like a mainline. It was a line from Stockton to Oakdale, as I remember, Oakdale being a small town on Highway 120 on the way to Yosemite over the Groveland route. Anyway, so my grandfather evidently granted this right of way to Southern Pacific in exchange for which he gained some sort of lifetime privilege to ride the train. Because in those days there were both passenger and freight trains on that particular line, passenger trains running into Stockton and going the other way. So he gained some sort of privilege that way.

Well, those trains continued to run during my childhood, and for some reason I only remember this one occasion, there might have been more than one, when my mother said, "Let's go into town on the train." At our place there was a station stop, and it was not called Windsor because there was already a Windsor stop somewhere, Windsor being the town in North Carolina that my great great grandmother had come from when she came out to California. So it was called Orford Station, and Orford was the little town in New Hampshire where my great great grandmother Mary Kimball Rhodes was born. So anyway we went to Orford Station, which was just a pole with a cross on it that said Orford. The train approached from the east whereupon at a certain point my mother pulled out a white handkerchief and stood on the tracks and waved the handkerchief so that the engineer could see that there was someone wanting to board the train. Indeed the train slowed down, and my mother and I climbed on the train and went into Stockton, which would have been about a five or six mile trip on the train.

LaBerge: [laughs] That's so great.

Pister: There's a related story that again shows how things have changed in our lifetime that I can't relate with as much certainty. But during the time when my mother went to high school--which would have been in the early part of the twentieth century, the first decade--I have some recollection that she took, I don't know what you call it, those little cars that the track workers used to ride on. But there was some kind of little car. I think it was driven by some sort of an engine, but she would sometimes ride into high school on that little car as an alternative to the other way that she would get to high school from there, which was by horse and buggy. She and her sister would have to be driven or drive themselves, I expect, by horse and buggy. Next to the high school in Stockton was a large livery stable, which as I recall in my early childhood, that livery stable was still in existence at Stockton near the high school. Anyway, that's the end of my recollection there. But it's an interesting commentary on what happens in a single lifetime, because the track now is no longer in use, the right of way has been given up.

Taking Agnes Robb to Charter Day Dinner, 1980s

Pister: Well, a totally unrelated incident, a half a century later in my life, had to do with a very interesting and happy experience that I had with the long-time secretary for President Sproul, whose name was Agnes Robb. There are many many stories about Agnes Robb including the time--I think it was attributed to her--when she heard President Sproul shouting and said, "What are you doing?" He said, "I'm speaking to Sacramento," and she said, "Why don't you use a telephone?" [laughter] Anyway, Agnes Robb basically ran the University of California for President Robert Sproul. During the time that I was--this was late in my term as dean of engineering--I got to know Agnes. She was an honorary member, I believe, of the UC Berkeley Foundation, and I was an ex officio member of the foundation board by virtue of being dean of engineering.

So I got to know Agnes, and for reasons that are not entirely clear to me we became good friends. She and I shared similar views about what needed to be done on the Berkeley campus in the way of fundraising. I seem to remember she left a substantial estate to the university when she passed on. Anyway, this particular incident concerns a Charter Day celebration at the Saint Francis Hotel in March in the late 1980s. These were of course very wonderful chances to celebrate the university and the Berkeley campus being the founding part of the University of California. They were formal dinners, and at the dinners the alumnus of the year was honored and so on.

Well, I don't know how I learned this, but someone said that Agnes wanted to go, but there was no one to take her. And it happened that for some reason my wife was not able to go. So I said, "I'll be happy to take Agnes to the Charter Day dinner as my guest." So, this is a formal dinner. I remember driving down to Oakland. She lived in a retirement home not too far from MacArthur Boulevard as I remember, somewhere down there. I had to go to the door and be admitted and ask for Agnes. So Agnes came down dressed in a formal, and I took her as my date, drove to--

LaBerge: [laughter] How old was she at this point? How old were you?

Pister: This was in the 1980s. So I was probably at least sixty years old, and Agnes must have been at least twenty or twenty-five years older than I. But we made, I think, a very dashing couple, and we had a wonderful time at the dinner, and then I had to take Agnes back home. It must've been after eleven o'clock when I brought her back to the door of her retirement home. I remember a gentleman coming to the door, and he had to unlock the door to let her in and he said, "Agnes, you're out quite late tonight," [laughter] which was reminiscent for me of the times when I was a young guy bringing home my date and having an irate father or mother waiting at the door because I brought his daughter home too late. Anyway, I think that was almost the last time I saw Agnes. It's a wonderful way to remember her.

LaBerge: That's a great, great story--I'm sure that's not been told anywhere.

Pister: I don't, I don't think anybody else--well--.

LaBerge: No one has that story. [laughs]

Pister: There might be somebody that remembered us at that particular dinner.

The Pister Research Machine (PRM) and Electronic Family Tree

LaBerge: That's wonderful. Well, shall we launch into research?

Pister: Yes. So now we're back on track again to continue talking about research, and I hope I make a smooth transition here. Perhaps that's less important than putting some other things in the record. [laughs] In picking this up again, I think it's perhaps useful or appropriate to emphasize how one's research interests change with time as one's career evolves. I must have said earlier that when I first came back to Berkeley after my graduate study at Illinois, I was very much a purist. I didn't want really to work on difficult, hard to pose engineering problems that were complicated by their reality [laughs]. It was much easier to define problems abstractly and work on these abstract models of reality rather than on the reality of an engineering design or system.

Something that I forgot to mention, I remember early on in my career here when I was still a young faculty member, I remember the dean at the time, Mike O'Brien, calling a meeting of, I think, all assistant professors in the College of Engineering at the Faculty Club. I still remember being there in the Great Hall of the Faculty Club with this old guy, Mike O'Brien, my dean, talking to us about engineering. At one point the dean said to us, "Engineering is about design. If you're not really interested in design, you really don't belong here." I was so offended by that remark because I had absolutely no interest whatsoever in design. I said this guy really doesn't know what he's talking about. It didn't disturb my own career trajectory at all. I didn't pay any attention to him in those days. However, over my own lifetime, I came to see the truth to his statement. But it shows what happens as one gains hopefully some wisdom along one's career track.

Another thing that I wanted to mention that I failed to do in connection with that early group of students that I've talked about, the "Gang of Five" that I had in the early 1960s,

they had a great sense of humor, all of them. I remember hearing from them for the first time the acronym PRM, and I wondered, they kept talking about the PRM, and I finally got from them the meaning of PRM. It was the Pister Research Machine. [laughter] They were all gears in the Pister Research Machine, which was turning out research papers as its product. So that has stuck with me today. In fact when my students two years ago organized this wonderful event for me at the Claremont Hotel celebrating my fifty years in the university, one of that gang talked about the PRM--

LaBerge: The PRM. [laughter]

Pister: --at the banquet. Here I'd also like to mention for the record that at that event, which was called the Pister Blue and Gold Celebration--and thanks to, I think, primarily the efforts of my son Kris, they produced an electronic family tree, which will be available in connection with this oral history. They had the hard copy printed so that it was one huge banner extending around the walls of the dining room where we had dinner, showing all of my Ph.D. students with the titles of their dissertations. Then from each of these students, since most of them are academics, it showed the students of my students. It was a wonderful opportunity for many of the guests who were listed or present on this large banner to go and identify themselves and talk about the experiences of those years.

LaBerge: Will we have a web site to refer people to or something, or--?

Pister: No, I think the best thing here will be to make a copy of this, a CD copy of this disk for anyone that would wish to look at it.[1]

The Box-Jenkins Technique: Time Series Analysis

LaBerge: We could put it with your papers. We could deposit it.

Pister: Yes, sure. Right now it's on a zip drive, but we could put it on a compact disc, in time. Well, I think I can move back now to talking about the evolution of my research. I remember talking about the acquisition of the first mini-VAX computer with my colleague Lucien Polak in electrical engineering and computer sciences. As I say, his field was optimization theory, and I was interested in the dynamic behavior of structures, particularly earthquake-induced motion of structures. Together we had a series of students who focused on the development of algorithms for optimal performance of structures, and writing computer codes that were supportive of these design strategies, to improve the performance of structures under earthquake loading.

It opened up a whole new line of research for me, and I think for the field, that has taken almost twenty years to be realized. I left that field in 1990 when I went to Santa Cruz. But I've learned from colleagues now that the work that was started back in the seventies that I continued until I moved from the Berkeley campus, has now begun to really be seen as a new basis and an improved basis for looking at the design methodology for structures

1. A CD of this acadmic family tree is inserted at the end of this volume.

subjected to seismic loading. So I'm pleased by that, and hopefully it will indeed do what it was designed to do, to make structures more cost effective and able to withstand earthquakes better.

Another step in this design methodology that really, in retrospect, has no apparent causality in my life [laughs], but it happened--for some reason, I started to attend the lectures of my colleague who was then my associate dean in the college for advancement and for research services, Bob Oliver. Bob was a professor of industrial engineering and operations research, but he and I became friends early on in his career here. He came, I think, some years later than I, but we were friends for a long time--but I never talked with him much about research. But for some reason I started to attend his seminar. It provided the kinds of insights that I needed to better understand how to characterize ground motion. By that I mean the forcing loads that you need to carry out a design of structures subjected to earthquakes.

Bob was teaching a seminar on time series analysis. I became acquainted with that methodology. In fact he and I and students wrote several papers together tying his understanding of time series analysis of earthquake ground motions to design of structures. It was a wonderful example of what there's all too little of in one's career, crossing disciplines and taking advantage of insights in the definition and solution of problems that can be afforded by getting a fresh approach to a class of problems. So Bob and I collaborated for a number of years and again, took some steps that time has shown to have been important steps. Because now the approach that we used is fairly well established in many research centers around the country and around the world, for that matter.

LaBerge: Do they have a name?

Pister: Well, it's called ARMA modeling of ground motion.

LaBerge: Were you doing this while you were dean?

Pister: Yes.

LaBerge: Were you continuing your research?

Pister: Yes, I was doing that while I was dean.

LaBerge: Do most deans do it?

Pister: I think that most deans do. If you don't continue your research, you make that choice at your great peril, if you ever go back onto the faculty. In my case that turned out not to be significant since I didn't go back to a regular faculty appointment after my deanship. But had I done so, it would have been absolutely vital that I kept my research going because the personnel process looks at academic administration as kind of like maternity leave [laughter] for a female member of our faculty. It's something that's important, but it has nothing to do with your career. Tough luck if you take the time out to either be a dean or department chairman or a chancellor, and then go back to teaching and research. The real important thing in your life is to continue to do research. I did at a reduced pace, to be sure. I had no more than one Ph.D. student at a time during the time I was dean, but I did

keep involved with research. I had also a couple of postdoctoral fellows working with me as well. They were part of the research team. So that's not a problem.

LaBerge: In your notes about going to Bob Oliver's class, you have "Box and Jenkins"--

Pister: Oh, the ARMA modeling that I talked about is called a Box-Jenkins technique.

LaBerge: Oh, okay. Named after--

Pister: Named after two people. There's a book on time series analysis by Box and Jenkins.

Computational Mechanics with Bob Taylor and Others

Pister: Well, let me back up and say the only other thing that I haven't stressed in this period of my active research has been the work that I did primarily with my colleague Bob Taylor--who is one of my early students--with Bob and a whole series of doctoral students that we worked with together in the field of computational mechanics. I mention this because later on I want to connect that to the awards that I've received and what happened subsequently. Computational mechanics is, I should say, a union or a joining of the principles of mechanics, the equations of mechanics primarily with the digital computer. The whole area of problem solution of complicated problems in mechanics of whatever type, fluids or solids, structures, whatever, was dramatically impacted by the advent and subsequent continuous improvement in the capability of digital computers. It became possible to spend a significant amount of effort in identifying and then designing and implementing software packages that could be used to solve a whole variety of complicated problems in this field.

As I said, Bob and I and our students in a variety of areas all the way from solid propellants initially to concrete to steel structures, did a lot of research sponsored by a number of different agencies in the field of computational mechanics. I would say that I was one of a group of faculty in my department that really became acknowledged as creating one of the strongest centers in the United States, and indeed ultimately in the world, in this field over the years. I was not the major player, or even a major player, but I was part of a team of people particularly under the leadership of my colleague Ray Clough whom I've mentioned earlier. He and one of his students Ed Wilson along with Bob Taylor, my student, were the prime leaders in this field, but many of us contributed to it.

Change in Attention to Broader Issues Related to Technology

Pister: Moving away now from the engineering-based research that I did, beginning in the--when would it be--just at the end of my tenure as dean and the beginning of my period of chancellorship at Santa Cruz, something happened that began to shift my interests and my attention. First my attention and then the interests followed that, I think, away from a

more, what I'll call, basic science kind of research into examination of broader issues that were technology-related or science-related. I remember one of my first ventures was a paper that I wrote in *Issues in Science and Technology*, which was a National Research Council publication. This was prior to the election at which President George Bush, the first George Bush was elected. It was, I think, brashly entitled "Advice to the Next President." [laughter] It had to do with the importance of science and technology in setting policy. Even earlier than that, and I think I've mentioned this already in the history, I had taken part in a meeting in Italy that was focused on technology transfer from universities, and this was with Archie Kleingartner from UCLA.

LaBerge: So after he was vice president, or--?

Pister: Yes. Following his period of the vice presidency, when he went back to UCLA, he was in the Institute of Industrial Relations or something like that down there at UCLA. Anyway, I wrote papers in our engineering publication *Forefront* and in other places associated with engineering education and science and technology policy.

LaBerge: What caused your attention to change?

Pister: I think as a dean, even though I was still doing research, part of me had to pull away and look at these broader issues, just by virtue of the responsibilities of the position. Then later, actually, my interest shifted, so that over time I became really less interested in what I'll call or describe as the "narrowness" of a very well-defined engineering problem as opposed to a much more difficult and complex social-political issue. This was also I think partly a consequence of my appointment in, it would've been I guess about 1990, as the founding chairman of the National Research Council Board on Engineering Education. I don't remember if I've talked about this already or not.

LaBerge: I know we talked about it off tape. Was that the one with Samuel Florman?

Pister: Samuel Florman, yes.

LaBerge: So why don't you--

Pister: Yes. I'll postpone that until I talk about my professional liaison. I'm just citing it now as an example of the shift in my interest away from technical areas.

LaBerge: Did you have anything to do with the technology transfer initiative when David Gardner was president and the Harbor Bay Isle and Ron Cowan, I think those were--

[35B]

Pister: I was only an observer of that scene. Later on when Jack Peltason became president, however, I was interested in and had some involvement in one of his initiatives for technology transfer, but I haven't gone back and reviewed that so I can't say more. It certainly was an issue that we were all pretty interested in and continues to this moment to be extremely important for the university. I think for the moment at least that finishes the topic--unless you have some questions or some thoughts.

LaBerge: There's one--I certainly don't have any thoughts on engineering research [laughing], but there's one thing that I'm not sure we talked about that was on your list, "dynamic programming as a common setting."

Pister: I think I'll just leave that out.

Research with T.Y. Lin and Alex Scordelis on Pre-stressed Concrete Slab

LaBerge: Okay. If you've spoken about most of your faculty collaborators, changing patterns and associations, I note the name T.Y. Lin. I have a little note that you wrote a paper together on pre-stressed concrete slab research that I know we didn't talk about.

Pister: Oh, I could say something about that. As I mentioned already, the first research program that I became engaged in when I came back to Berkeley in 1952 was with Boris Bresler in the field of the strength of concrete, and I've spoken about that. I had a couple of other sessions with concrete [laughs] over my life, my academic life. I've mentioned one of them, the latest one was in the 1970s with my colleague from Stuttgart, Kaspar Willam in modeling the creep of concrete. But in between those two really isolated instances, I had one very interesting association with my very well-known and respected colleague T.Y. Lin, and a contemporary of mine, who was my next door officemate for almost all of our careers at Berkeley, Alex Scordelis. The three of us collaborated on a project that T.Y. had initiated. It was the full scale testing of a pre-stressed concrete slab. It was pre-stressed in two directions. That simply means that it was a square slab supported at the corners, and there were pre-stressing wires running in both directions parallel to the edges to provide the necessary compressive forces that are necessary to pre-stress the slab. The slab was actually tested in the old engineering materials laboratory. It was a really interesting test because it was one of the early applications of air pressure, just putting in a rubber bladder above the slab with a backup and then pumping air into it so you could get a fairly substantial uniform load on the slab that way.

Well, at any rate, T.Y. and Alex did the design of the slab, and T.Y. made his own typical back of the envelope calculations about the behavior of the slab. By that I mean how it would deform under load. And they had asked me to collaborate to provide my best estimate of the elastic behavior of the slab before it cracked. I remember finding a solution to this problem in a book in German by Henri Marcus. For some reason he had an approximate solution of the same kind of a plate loaded uniformly, supported at the four corners, which is the way this one was supported. So I used that technique, or his results, to predict the elastic behavior of this slab.

And we did a big test, all sorts of people were present. T.Y. used to really orchestrate these things. He'd invite half the world in to watch. He loved to be there kind of conducting, as if he were a symphony conductor, having the machine get started, and listening to the deflections being called out and all that. Anyway it was quite an interesting affair. And as I remember, my calculations were *reasonably* good, and his were *very* good too [laughter], and were done on the back of an envelope, so to speak. But anyway, we had a joint paper out of that, and I have always appreciated the fact that I had a chance to work with T.Y., at least on that one occasion. He was my department and my

division chairman at one point and indeed was the one that recommended me for a Miller Institute professorship. So I have tremendous respect for him as a most innovative, creative designer and wonderful person, wonderful colleague to work with.

LaBerge: Well, one other--although you have him listed under people, but it might have to do with research, is John Whinnery. Is this a good spot to talk about him, or--?

Pister: I think I'll wait and talk about that under people later. What I'd like to do now is shift over to, go over kind of a chronology of professional activities and follow that with my University of California committees and Academic Senate and administrative committees. Okay?

XI. PROFESSIONAL ACTIVITIES

Influence of Raymond Davis

LaBerge: Tell me, just to start, how important are the professional activities for your career and for your research?

Pister: I think that's an important question, and I can only address it from my experience as a dean and earlier as a division chairman when I did the recommending letters for personnel cases. The criteria expressed in the academic personnel manual that we talked about at some length in connection with the task force, have to do with evidencing superior intellectual attainment in teaching, research or other creative work and service. Those three categories are the fundamental ones. But in the manual and certainly in Berkeley practice at least, the research or other creative work in the case of people who are in professional schools or colleges, takes on a dual meaning. In other words, "research or other creative work" is a code for a whole spectrum of activities in which engineering faculty are able to evidence superior intellectual attainment. All the way on one side in the area of engineering science, looking at the, you might call, the basic research questions that underlie engineering practice: how to understand elements, systems, processes that are necessary to inform engineering practice, design and operation of systems--to the other side, namely, what evidence can be brought to assess the quality of application of these basic things in the practice of engineering? In other words, how has the individual impacted design codes, has shown creativity in executing designs or solved or aided in the solution of complicated problems as a consultant, that whole range of activities. In other words, it's the clinical side as opposed to the research side--and that appeared typically in a personnel case under the heading "professional competence." So you'd talk about first what basic research program has the faculty member been engaged in, and then what evidence of professional competence can you bring to the case.

Well, during my own career I had a whole range of activities that might be called professional activities, some of them much more focused than others. But in retrospect it gives me, I think, a very solid and profound sense of satisfaction that I had the opportunity to do the things that I did outside of my normal research program--not outside it, but probably in many cases as consequences of a research program that I was engaged in at the university.

The earliest recollection that I have of doing anything in the area of professional activities was when I was asked by my very senior colleague, Raymond Davis, after whom Davis Hall is named, to help him as a consultant on a job that he'd undertaken, for whom I can't remember. It had to do with using abandoned tunnels in the United States to store natural gas. I don't remember even now why one would want to use old tunnels to store natural gas--but natural gas is stored often underground in porous materials. It's stored out in the Sac-San Joaquin Delta, as a matter of fact, underground. My job there was to help Professor Davis with the capacity of tunnels. How much could you pressure a tunnel without cracking the lining? So I had to work on that problem with him, and I remember writing up a report. And the other thing I still remember to this day, this would've been in the early 1950s, I was pleased at the offer that he gave me of four dollars an hour to serve as his consultant.

LaBerge: [laughs]

Consultant: Lawrence Livermore Laboratory; Kaiser Aircraft and Electronics

Pister: The next recollection that I have is back to 1957 when I became a consultant to the Lawrence Laboratory, or at that time it was called the UC Rad Lab at Livermore. This consultancy followed two summers that I spent as a summer employee at Livermore. I was asked to continue as a consultant under, as I remember it, Regulation Four of the Board of Regents, which allowed a faculty member to provide consulting services to another unit of the University of California and receive additional compensation up to a certain maximum percentage of your regular nine-months salary. And I might add, at a rate determined by your university salary [laughter], which was typically substantially less than what you'd get as a consultant elsewhere. But that consultancy with Livermore was the beginning of an association that I've had with that laboratory that continues until today. In fact on Wednesday, I'll be back there again [laughter] for three days chairing a committee reviewing the engineering directorate for the director.

I should comment that even though the popular position on Livermore is that everything is classified and it has very little connection with the university, I found over the years that my involvement with Livermore led me to uncover some very, very interesting technical problems. Often these problems would've been of sufficient interest to the laboratory that I'd get small grants. Those grants typically would support a graduate student, a graduate student's research, and all of this work was unclassified, and reported back to the laboratory. Indeed, back in the seventies, the interaction of myself and my colleague Bob Taylor with the computational people at Livermore really helped in producing one of the software programs for stress analysis that Livermore, even today, holds out as a wonderful example of creating a methodology that has had significant dual use, in other words, well beyond Livermore. In fact, that particular development led to one of the Livermore people [laughs] leaving the lab and setting up his own company.

LaBerge: Oh, who was it or what was the company?

Pister: Oh boy, I can't remember the name of the company now. It's in Livermore somewhere, but I can't remember the name. The first name was John, and the last name begins with

H, but I can't remember it. There was one not so funny incident that--it didn't cause any compromise in our ability to win the Cold War, but on one occasion we were doing work--I don't think I've talked about this yet. I hope not.

LaBerge: I don't think--just by the introduction, I don't think so.

Pister: We were doing work on the behavior of high explosives, and I made the incredibly stupid mistake of using--this was a hollow cylinder, and I used a dimension of one of the radii of the hollow cylinder that was classified, that was a number that appeared on a classified drawing and couldn't be used elsewhere. In retrospect it's a kind of gross misuse of classification, but that happened regularly. We did a preliminary report, an unclassified report, in which that classified dimension appeared. Well, one afternoon a colleague from Livermore appeared with a large bag and said, "I want everything that you've ever done on this project in this bag," [laughter] including the work of the graduate student who was working in a Butler Building on top of the old EML--cleaned his desk off and whipped it out, and that was the end of that particular phase of the work. It disappeared in a bag somewhere, and God knows where that bag is now, but it never saw the light of day again. I didn't get an official reprimand for disclosing or misusing a classified dimension, but it was an awkward moment for me. Generally my association was much more productive than that. Over the years a number of my students took jobs at Livermore. I think at one point I had four or five Ph.D. students at Livermore. That has been an important association for me.

The next recollection I have has to do with a job that I did for Kaiser Aircraft and Electronics. This would've been in the early sixties. Kaiser Aircraft and Electronics was doing a research and development project for the air force in which they were trying to make--at that time, this is almost forty years ago now--a flat-panel television display for use in aircraft so they wouldn't have the depth problem of a normal TV monitor. So they were trying to do a flat panel display. They had glass plates, very thick glass plates, almost an inch-thick glass plates, because they had to evacuate the cavity behind the front screen. They were having a lot of trouble with these plates breaking. They called me in to try to help them understand why the flat panels were breaking all the time, and so I had a brief but interesting interaction with this part of Kaiser that most people didn't know exists.

LaBerge: Exactly, because it was part of the whole Kaiser Industries?

Pister: Yes. Right. It was Kaiser Industries, and it was down in Sunnyvale, I believe, at the time. I remember, the person I dealt with in the Kaiser building headquarters was a retired admiral. I think his name was Admiral Watt, and he was a very interesting fellow. He was my main contact. As I think back on that, the thing that they had really failed to understand in dealing with their glass panels was that glass is a very inhomogeneous and kind of chaotic material, and one panel can be very different from another panel from another panel. You have to deal with the behavior of glass in a statistical way, otherwise you can run into trouble. So they were testing them, but they were testing them ahead of time at too low a pressure, and many of them broke as a result when they loaded them up.

LaBerge: So you were able to help them solve the problem.

Pister: I hope so. [laughter] I don't know if they ever produced that flat screen TV, but it was an interesting opportunity, because that was a field of my own research, in behavior of plates, that I was pleased to find an application for.

LaBerge: Is that how they found you, because you had this reputation?

Pister: Actually I still remember how they found me. They called Dean John Whinnery, and John Whinnery referred them to me. That was the connection. I did the same thing when I was dean. If someone called me about a problem, I typically would, if I knew who on the faculty worked in that area, I'd refer them directly. Otherwise I'd go through the department chairman in the field of that person's expertise and do it that way. It's one of the pleasant things [laughs] about being a dean that you can do.

Mathematical Sciences Northwest; Lockheed Missiles and Space Company

Pister: There was another interesting association--and I think I have mentioned this early on, but let me for continuity bring it in here. Early in the 1960s, I got a consulting contract with Aerojet General Corporation in Sacramento. This was a personal consulting contract, but it gave enough resources so I could actually employee graduate students, and I remember I employed Bob Taylor and Leonard Herrmann, whose names I mentioned earlier.

LaBerge: From the Gang of Five.

Pister: From my gang, who did work for me. And I remember, this was my first experience with withholding tax and filing quarterly reports and all that. [laughter] I found that to be a--not a very productive thing to do, to take on a little contract like that and have to do all that bookkeeping work. So that lasted a while in the sixties, but I never went back and worked that way again.

I was involved in a fairly significant way with a corporation that grew out of my friendship with another colleague I've mentioned already from Caltech, Max Williams. Max, when he was at Caltech, started a company called Southwest Engineers. When he moved--it was just a small consulting company--when he moved to Utah, Southwest Engineers moved up to Seattle and was renamed Mathematical Sciences Northwest. And two colleagues up there that were involved in this corporation, were John Bollard and Ellis Dill. Ellis had been my second Ph.D. student at Berkeley, and both of them were members of the University of Washington faculty in engineering.

LaBerge: And this, it's now called Northwest--

Pister: Mathematical Sciences Northwest. It had a very small staff, and we lived off of government contracts basically, particularly contracts with the navy or with NASA, largely in the field of rockets, solid propellant rockets. At a certain point the company wanted to show a presence in the Bay Area. So I was named the head of the Berkeley division, which was more or less just a titular head. But it did afford me the opportunity again in a number of instances to gain a base of support for graduate students so I could

employ graduate students and help them, as well as get them engaged in interesting research, some of which ultimately could be incorporated in their dissertations.

Just to complete this, I also worked with--again in the solid rocket field--with Lockheed Missile and Space Company. They took over a rocket company down in Redlands, which would have been called Grand Central Rocket before. I did research for them. I typically had a small grant with the university that would lead to support for one or two students here. So we were very much involved with the solid rocket industry over a period, it went from about 1960 to 1980.

LaBerge: Would graduate students know that you were doing this, so they would want to come here to work with you on that area?

Pister: Oh yes. Well, I think they would know from our publications because all of this work, the publications were in the open literature. In fact since you've mentioned that, I think it's worth mentioning that last Monday in my department, we had a seminar speaker from Stanford, Tom Hughes, who is a professor of mechanical engineering there, a very distinguished professor, a chaired professor I should add. He came, and he reminded me that I had hired him thirty-three years ago as a research assistant, and he worked in this general area.

LaBerge: It must give you such satisfaction to see.

Anecdote: Gerhard Caspar

Pister: It did. Since I mentioned Tom Hughes--I don't know if I've told this story about Gerhard Caspar or not.

LaBerge: You've mentioned him once. So start it and we'll see.

Pister: The dinner party, did I--I mentioned him in connection with affirmative action I know, but if all of it is in the record, we can strike one.

LaBerge. We can excise it.

Pister: I thought of this because of Tom Hughes. Several years ago Tom received an endowed chair at Stanford, and on the occasion of his reception of the endowed chair, the president of Stanford, Gerhard Caspar, invited me--I imagine gave Tom the opportunity to invite friends--and also of course, the donors of the chair. So we had a delightful dinner at Hoover House on the Stanford campus. I had known Gerhard before because he was president while I was chancellor at Santa Cruz. So we had been together on a number of occasions, and I particularly appreciated his excellent essay on affirmative action. That had brought us even closer together. At any rate, at the dinner Gerhard got up to make a few introductory remarks and was acknowledging people. He graciously acknowledged me as a colleague that he'd known when I was chancellor, and he then made the statement, he said, "But that wasn't the beginning, we were both on the faculty at

Berkeley at one time." And I just, without thinking twice said to him, "Yes, Gerhard, but you didn't have tenure" [laughter] because he left--

[36A]

LaBerge: You said to Gerhard Caspar, "But you didn't have tenure."

Pister: That's right. That hit him with such a shock [laughter]--it wasn't intended, of course, as an insult, it was a joke. But it hit him so that he actually was speechless and stopped speaking. I think the guests at the dinner were a little bit taken aback by what I said. But he recovered, of course. He's a very smart guy. And I felt kind of bad, and so I subsequently, when I wrote a note of thanks for the dinner, I apologized if I caused him any discomfort by my remark. But he just opened himself up for it. I have a very bad habit of attacking people that leave themselves open.

LaBerge: [laughs] We do not have that story on tape. So that's quite good. There was some other place, maybe--at some place where you were on the podium with someone and you were to the left. Was that Gerhard Caspar?

Pister: No. That was Barry Munitz.

LaBerge: We have that story.

Pister: I was on the podium once another time in the annual ARCS [Achievement Awards for College Scientists] luncheon in San Francisco when--I can't remember, but again, we kind of sparred at that luncheon as well. Whenever Stanford's involved, I have a hard time restraining myself.

LaBerge: I'm sure.

Pister: I always like to make jokes like, "Well, Gerhard, you don't come from a university. You come from a junior university." [laughter] Well, we'd better get back.

SMiRT; Work for Agbabian Associates

LaBerge: We'd better get back to this--

Pister: To where I am. The other things I'm mentioning as we go along with professional activities--. I've mentioned already the name of Tom Jaeger, who was a colleague from Berlin that visited me in the late 1960s and talked to me about his idea for having an international conference on structural mechanics and the application of structural mechanics in the design of reactors, nuclear power reactors. I attended the first conference of SMiRT, as it was called, in 1971, and I think I've talked about that. In 1972 I was put on the scientific advisory committee for that international conference, which was held in '73 in Berlin. Then subsequently I was made a member of the international scientific committee of a group that became known as the international association for SMiRT.

LaBerge: And we can refer people back to the other pages where this is, where you--

Pister: Yes, sure. That association continued through 1981. So it was a ten-year period in which I had substantial responsibility, along with a colleague, Sam Key, to organize and plan a session every two years in this international conference. The last conference I attended was in 1981 in Paris. That was my final responsibility in that organization. It was another opportunity, in this case particularly to present work that we'd done on both computational mechanics as well as the work that I did in characterizing earthquake ground motion and applying that to, in one case, to the isolation of a reactor vessel to shield the reactor vessel from earthquakes using base isolation techniques.

LaBerge: This kind of thing like SMiRT is pro bono, is that right?

Pister: Oh yes. All that's pro bono, yes. I mean, the conference paid our travel expenses, but there are no honoraria. The work that I talked about earlier for Aerojet and for Mathematical Sciences was not; I was paid as a consultant when I did work. The other thing I would mention is that later on in the 1980s I became a consultant working with a firm in southern California whose name was Agbabian Associates. I mentioned Mike Agbabian already. He was a classmate of mine in 1948, he was the first Ph.D. in structural engineering in our department at Berkeley. He and I from that point have been friends, and we were reunited again in 1990 in connection with the American University of Armenia. He was the founding president.

Anyway, back in 1982, I became a consultant to his organization working on a whole new class of problems essentially to examine the adequacy of our containment systems for intercontinental ballistic missiles. We did a certain amount of fieldwork and analysis associated with the examination of the ability of these containment systems to withstand a Soviet attack. So a lot of that--well, not a lot, virtually all of that was confidential or restricted materials. So that's probably all I can say about it, although now it's water under the bridge.

What I'd like to do now is go back and talk about--these were specific consultancies that I engaged in, but there's a parallel set of professional activities that I think is important to record. That had to do with work that I did for professional societies or organizations of that type, both inside and outside the university.

American Society of Civil Engineers

Pister: The first of these that I'd mention is in the American Society of Civil Engineers. I was a founding member of a division of that society called the Engineering Mechanics Division. That was founded in the 1950s as a new part of the American Society of Civil Engineers. I became, in the seventies, a member of the executive committee of that division, and I then succeeded in being vice chairman and ultimately chairman of the Engineering Mechanics Division in the years 1973 to 1975. That kind of experience gives one an opportunity to meet colleagues from across the United States. The person that I remember best at that time was a colleague that I'll be working with this next week at Livermore. He's now chancellor of the Polytechnic University of New York, George

Bugliarello. George at that time, when I first met him, I think was at Carnegie Mellon, and he was a wonderful, very visionary kind of colleague that I've respected and worked with in many capacities over the years. So I cite him only as an example of the opportunity to meet people from across the United States and to get a much better sense, much better perspective of engineering, and particularly civil engineering.

LaBerge: How much time would that job take, for instance, and what would you be doing as part of the executive committee?

Pister: Well, the executive committee has the responsibility for overseeing the technical committees of the division and basically overseeing the *Journal of Engineering Mechanics*, making the committee appointments for these technical committees which are effectively peer review committees for the archival publication. A very important responsibility was managing the awards program of the division. There are several prestigious awards that that division gave, and the executive committee, the chairman in particular had to manage the selection process. That was an important responsibility. And finally, working with typically on-site people in the development of technical programs for conferences that the division would be involved in.

LaBerge: Is it something like belonging to the Bar Association or the AMA for a lawyer or a doctor? Like, do all civil engineers belong to this, or not?

Pister: Many of them do. Not everyone surely, but many of them do. It's the single professional organization for civil engineers. I belong to that and the American Society of Mechanical Engineers as well, as the two professional areas that I find the most in common with. So that was an early involvement that I had in professional society activities.

NRC Committee on Computational Mechanics

Pister: Following up, an important position in which I again had the opportunity to make a whole new set of relationships and friends--I was asked in 1981 to be the co-chair of the National Research Council Committee on Computational Mechanics, which was, as I've noted, one of the fields of research that my students and I were involved in. I was co-chair with Mel Baron, who was a colleague from New York in the firm of Paul Wiedlinger, which I've mentioned earlier. Mel was also an adjunct professor at Columbia University, a wonderful colleague who met a much too early death.

But at this point looking back now, that committee was formed to examine the field of computational mechanics, which at the time was really still developing--there was a very active group of people in computational mechanics, but the field itself had not matured to the point where it was universally recognized as a discipline in its own right. I remember a lot of the discussion on that committee as to how to define computational mechanics, where did it fit into the grand scheme of things in engineering or applied mathematics or applied physics. We put out a report, which of course is probably the least important thing that a committee does. It's the talking, it's the change in perspective of the people that take part in going back home and reengaging in the field, it's probably just as important as a report, which may or may not have an impact on many people.

About the same time, this is 1981, I was made a member of the founding council of the International Association for Computational Mechanics. This international association is one of the major umbrella organizations now in the world that has member organizations, member councils in many, many countries. I'm an honorary member of this international association now for which I'm duly grateful.

I note in 1982 I was invited to be a guest, a distinguished guest lecturer at the University of Colorado at Boulder to talk about our work in mechanics at Berkeley. This was a particularly pleasant experience because there I had a chance to visit with three different people that I had known in very different ways over my career. The first person was a Colorado colleague by the name of Kurt Gerstle. Kurt was a graduate student at Berkeley early on, and later on went to Boulder and was a professor of civil engineering there. And then my colleague Kaspar Willam, with whom I had spent two sabbaticals at Stuttgart, who also is a professor of civil engineering at Boulder. The third person was even an earlier connection than either of these colleagues. His name was Roland Rautenstraus. Roland was a professor of civil engineering, having stepped back to that position after having been chancellor of the Boulder campus. Roland started there in civil engineering and then became, I think, graduate dean at the Boulder campus and ultimately was chancellor, and then went back to the faculty again. Roland was a particularly interesting colleague in that in 1945, he and I had adjoining bunks in midshipmen's school at Camp Endicott at Davisville, Rhode Island. We were ninety-day wonders. So we spent three months together at Davisville and then went overseas. I didn't have any contact with Roland again until he became chairman of civil engineering at Boulder, at which time he tried to recruit me to go to Boulder. But I never went there, and I didn't in fact ever see him until this occasion in 1982. So that was quite a few years in between--

LaBerge: I guess it's not such a small world because you were both in engineering when you were in the navy.

Pister: Yes. We were both in the civil engineer corps in the navy, yes. And each of these things that I mentioned to me is important because of the people involved. Over and over again as I've gotten older, I find that the material consequence of these meetings is far less important than the human side of it, the acquaintances that one makes and the relationships with some of the people that are derived from these particular occasions. Most of the time I, for example, going back, I can't tell you much about what was in the report on computational mechanics, or what I said when I went to Boulder. But I certainly remember the people that I just talked about there plus some others that I met that I didn't mention.

LaBerge: When you're invited to give a guest lecture, how do you decide which you'll take, which you'll say yes to, and which you won't? How much of it is an honor and how much of it is a burden? If that's too many questions at once--. [laughs]

Pister: No, I think it's a fair question. Actually, I don't remember. I didn't give a lot of guest lectures in my life. So I never felt it was a burden. I think I turned down a few when I was chancellor. But during the time I was dean or professor there weren't many. I certainly turned down a number of invitations to give papers at conferences. That's a lower level of a turn down. [laughs]

LaBerge: Yes, right.

Pister: But actually to give guest lectures, I didn't have that many that I would say it was a problem.

National Science Foundation; Review Committees for Other Institutions

Pister: I guess I haven't talked about a couple of interactions I had with the National Science Foundation yet. Well, first I should mention when--let's see, I can't remember who the director was that was replaced. But a person named Erich Bloch became director of the National Science Foundation in the 1980s. Erich commissioned an evaluation of the engineering directorate and asked the National Academy to do the evaluation to review the organization of the engineering directorate. And I was a member of that National Academy of Engineering Committee that give a report on the organization and operation of the engineering directorate. That was an interesting experience since the NSF has such a prominent role in support of research in engineering and science.

I also had the opportunity for the National Science Foundation to select the first group of so-called Presidential Young Investigators. I may have mentioned this already, but just for the record to be sure--. That was a wonderful program. It continues today under a different name, but it was a program and is a program designed to provide resources to outstanding young faculty below the rank of associate professor to get them started in their careers. It's now called a career enhancement program, I believe. It was my opportunity to be present for the first round of selectees in this program. I was pleased that Berkeley did very well, and not because of me but because of the quality of our young faculty. I am pleased that my own son, Kris, while he was at UCLA, received one of these awards as well.

I also had the opportunity during the time I was dean to chair a review committee for the civil engineering department at Stanford and then later on to be a member of the review committee for the department of mechanical engineering at Stanford. I've always had trouble identifying whether I'm more interested in mechanical or civil engineering. So it was--[laughs] I felt good that both departments felt that I had something that I could offer to their review. So I did both.

I also served for a couple of years on the visiting committee for the division of engineering and applied science at Caltech, and this was interesting from two points of view. First, the new president of Caltech at that time was Tom Everhart, who had been a Berkeley colleague, and we were close friends while he was at Berkeley. Then he went on to Cornell and then to Illinois before going to Caltech. Probably the highlight for me in that visiting committee experience was the opportunity to meet a person whose name I had seen, but I had never met, and that was Sy Ramo. Ramo, one of the founders of TRW, as it's now called, was an incredibly bright, innovative engineer who really was very instrumental in helping John Whinnery on his career. John went back to work with Ramo when they were both at General Electric, and then they both left General Electric and went to work with the Hughes empire. Hughes, oh boy, what was it called, Hughes Electronics, I think it was called. Ultimately both Sy and John left Hughes. John came to Berkeley, and Sy ultimately founded another company. He wrote an interesting book

called *The Business of Science* that describes all this period, a book that I've used extensively, quotations from it in talks that I have given.

But going back to that meeting, I remember having breakfast in the Athenaeum the morning of the visit, and this gentleman came up and sat down and started talking. He didn't introduce himself I don't think. He started talking about playing the violin and doing--[laughter] he had something to say about everything, and seemed to really be in control of things. So I finally realized it was Sy Ramo. I met him, and had another opportunity to have breakfast with him much later when I was chancellor at Santa Cruz--he's well into his nineties by now. But I think he was in his late eighties at the time and seemed to be totally in control of himself. But a brilliant man, and it was a wonderful opportunity. Again it's the people that one meets at these events that make them worthwhile.

LaBerge: So you did those different reviews. Did you do other reviews that you had to turn down?

Pister: Well, no, I don't remember turning any down. There are more reviews. I might as well clean up the reviews that I'm talking about. An interesting one was to be a member of a special advisory committee to the Regents of the University of Nevada System. There I served on a committee that was chaired by one of my advisory committee members when I was dean at Berkeley, Art Anderson. Art was a longtime IBM person. He was a vice president of IBM, wonderful guy. He moved to Incline [Village, Nevada] after retiring from IBM. That's why the Nevada people grabbed ahold of him, and we had several meetings to help the University of Nevada system do better in securing grants from the National Science Foundation.

I had another affiliation with the National Science Foundation. I was for three years a member of the advisory committee for the directorate for science and engineering education, which is now called the directorate for EH and R, education and human resources. That particular committee was very interesting, because I met two people with whom I have had subsequent substantial interaction. One was Walter Massey, who of course ultimately became the director of the National Science Foundation only to jump ship and come to be provost and senior vice president of the University of California. So I knew Walter way back when, when he was working in Chicago with the Argonne National Laboratory as a member of that committee. From the moment that I met Walter, I had a special penchant for him. He has a wonderful sense of humor, and is a very decent and very bright fellow.

The other person that I met was Jim Rosser, on that committee. Jim is a long-time president of Cal State L.A. Jim and I had been on committees off and on for the last twenty years, and most recently we're both affiliated with the California Council of Science and Technology and on the National Academy of Engineering Forum on Diversity in the Engineering Workforce.

Engineering Deans' Council

Pister: I had a couple of other interesting opportunities as I go down the list of the 1980s. I became active in the engineering deans' council of the American Society for Engineering Education. This is a group that met annually, there are close to three hundred engineering schools in the United States. Of course, not all three hundred showed up, but I was on the executive board of this deans' council ultimately, and I got to know my colleagues, many of my colleagues across the United States and in Puerto Rico for that matter. In fact we had one of our annual meetings in Puerto Rico, which was a nice--

[36B]

LaBerge: --talking about the engineering deans' council.

Pister: And indeed, it was at the meeting in Puerto Rico that I met a fellow dean from the University of Pennsylvania, Joe Bordogna. Joe is now deputy director of the National Science Foundation. Joe has been with NSF on leave from Pennsylvania for I don't know how long now. And all during the time I was chancellor and subsequently when I go to Washington, I try to have dinner with Joe because he and I like to talk about engineering and science, and what the NSF is doing. He's a wonderful, very creative colleague that I have great respect for.

The other things in this period that I note, I had a chance again for NSF to review the graduate fellowship program of the National Science Foundation. I think it's important to note this because during that review period, I had a chance again to meet another colleague [laughs] from the University of Texas system, Mario Gonzales, that I have a lot of respect for and have been in touch with ever since that period. In fact on the basis of that meeting, I recommended his appointment to the Board on Engineering Education. When I was founding chairman of that board, I had a chance to influence the composition of that board, and I chose Mario, among others.

Los Alamos National Laboratory

Pister: I also began a five-year association with the other laboratory, the Los Alamos National Laboratory in 1986. There I spent about a week each year in the summer on the advisory committee for the mechanical and electronic engineering division, along with a group of colleagues.

LaBerge: Are the other colleagues from some place outside the UC system?

Pister: Yes, they're all outside the UC, I was the only UC person present. Apart from getting a chance to see the difference between Los Alamos and Livermore, which is an interesting contrast in the way they were organized, the way they operated--perhaps not an intended, but a not inconsequential by-product, for the chance [laughs] to spend a week in Santa Fe for each of five years. So my wife and I, my wife came, of course, and stayed in Santa Fe.

We got well acquainted with Santa Fe and really enjoyed the perks of that particular period of time.

LaBerge: Would you want to go into the difference between Livermore and Los Alamos, or is that--?

Pister: No, it's just--I think I'd leave it at that. The cultures are different, the histories are different, the organization is different. The setting is different. They do the same thing in a sense, but it shows how the accident of history, and the accident of location and initiation will create a very different body. I think it is in a sense not unlike biological evolution. You can get two organisms that evolve quite differently with almost the same start, depending on the environment in which they're evolving.

Let's see, what else do we--?

Underrepresented Students and Faculty in Engineering

LaBerge: I have, National Research Council, we touched on some things.

Pister: I think I've included the ones. I've talked about professional activities that have been very much centered on my role as an engineer. I was a dean through most of this period. But there's another thread that I shouldn't forget and that is the evolving thread of my involvement with underrepresented students in engineering. By that I mean women in engineering, Chicano, Latino, American Indian and African American students in engineering. This is something that I've touched on briefly already insofar as it impacted Berkeley, and the work we were doing at Berkeley was noticed outside of Berkeley. So I was invited in a number of instances to affairs outside the Berkeley campus. I was a keynote speaker at the National Association of Minority Engineering Program Administrators, NAMEPA. I attended a conference in Houston sponsored by NACME. I think I've mentioned who NACME is once.

I note here also that in 1986 I was the keynote speaker at the University of California graduate deans' retreat on graduate affirmative action. I still remember that particular time because when I went to Santa Cruz, the graduate dean at Santa Cruz at the time had gone to that retreat and had heard me and met me for the first time. He said to me, "You were the only one that made sense at that retreat." [laughter] He was quite an outspoken guy, so I have to moderate what he had to say.

LaBerge: Who is that?

Pister: His name was Geoffrey Pullum.

LaBerge: We have a few more minutes in this room [Library Study Room].

Pister: Yes. I understand. We shall not be characterized as overstaying our welcome again. [laughter] Let me see. Yes, and then back home at Berkeley, I was first a member and later on chair of the faculty advisory committee of the Lawrence Hall of Science. I think I

spent three or four years on that committee in the late eighties. That was interesting, again a people issue. There were two people with whom I got quite well acquainted. First was the director of the Lawrence Hall of Science, Marjorie Gardner. Alas, again, an early death took Marjorie from us.

Then I had the really great good fortune to get to know Glenn Seaborg. Glenn was the honorary chairman of the Lawrence Hall of Science, and I had a number of talks with Glenn during those years. I found him to be a wonderfully open and very humble individual. His one weakness was that he had a running feud with the Berkeley campus and particularly its chancellor, whoever that might be--it was Mike [Heyman] at the time--over the campus' failure to provide any kind of a budget for the Hall of Science. The Lawrence Hall of Science has been a kind of an orphan in that, at one time, I think the Nuclear Science Fund of the Regents put money into the Hall of Science. In other words, the Office of the President had a presence there. But I never did discover the history of this. But at any rate, Glenn felt that the Hall of Science was neglected and nobody cared about it. He blamed Berkeley administration for that problem.

I mentioned already the visiting committee of the College of Engineering at Penn State with Henry Yang and Chuck Vest, so I won't mention that again. I think I mentioned that Governor Deukmejian appointed me to the Advisory Committee on Competitive Technology in the Department of Commerce, and we've talked about the infamous plutonium air transport program, so I won't mention that again.

There was another interesting task force I was on, the American Society for Engineering Education. It was a task force on the faculty pipeline, and since this involves a person that I've kind of mentored over my career since then, I think it's interesting because it once again demonstrates the people side of one's life that is much more important than things. At that task force meeting, which was essentially put together to try to look at the problems in creating and providing a diverse faculty pipeline for engineering across the country, to get a sense of where we were and what needed to be done--. There were, I don't know, maybe a dozen or so people on this task force. I think there were eleven white men and one young woman who was at the time, I think, either just about to leave MIT, or--no, I guess by that time she had left MIT, and she was an assistant professor at the University of Wisconsin. Her name was—[laughs] D-D-D, D cubed--Denice D. Denton. I still remember the occasion, and I don't relate this to take any great credit for it. But I remember at the end of the day, when it was time to leave and go out to dinner, the group of males said, "Let's go to dinner," and she was left out.

LaBerge: She was left out of the dinner?

Pister: She was--nobody said, "And Denice, why don't you come along too?" I noticed it and said, "Denice, come on. You join me. We'll go to dinner." Of course, that is something that she didn't overlook. So that was a beginning of a long mentorship where she went through a lot of problems at Wisconsin with a very unreasonable senior colleague and ultimately started looking around for jobs. I did everything I could to keep her there until she matured enough professionally and got enough in her background and her experience so that she could establish that she was a productive scholar before she took an administrative job.

She always consulted me and each time I'd say, "Denice, you're not ready yet. Go back and do your homework." So finally she succumbed and accepted the deanship at the University of Washington, and she did this without consulting me. [laughter] I think she was afraid that I'd tell her not to do it. Well, to her great credit, she shortly, after becoming dean, she came down to San Francisco. We had a meeting as a side issue to some technical meeting there. She told me what her plans were at the University of Washington. I said, "Denice, those are great plans. There's no way you're going to be able to accomplish--." And to my great surprise and great satisfaction, she's done what she said she was going to do. She's done a wonderful job there, and I really have always felt good about Denice and the fact that she finally broke away from her mentor and did what she thought to be the right thing. So that was once again a people story that has been for me by far the most rewarding part of my academic life. The people I've known, to see their success, their interests evolve.

Comments on Educational Innovation

[Interview 19: May 6, 2002] ## [37A]

LaBerge: Do you have recollection of the Experimental College, or Strawberry Creek?

Pister: The Strawberry College was one, and the individual major was another. I seem to remember that at least one of the things we addressed there was we had to approve the study, we had to approve the degree plan for students who were following an individual major. I don't know whether that still exists today or not.

LaBerge: The individual major?

Pister: Yes. The individual major at Berkeley. There were some bizarre attempts to create degree programs in those days.

LaBerge: Did you have thoughts on Strawberry Creek College?

Pister: One of my colleagues from engineering, Sam Schaaf, was part of Strawberry College. I thought it was--and I knew Joe Tussman--I thought his was a very interesting idea [Experimental College]. In many respects, it had the same fate as Santa Cruz did. It was a counter-cultural experiment, and such counter-cultural experiments are very difficult to sustain when the majority culture is going in a different direction. I think, without prying into poor Joe's own history, I think it did not serve him well in his own personal career at Berkeley. He suffered consequentially because he put so much into that that he was not able to make "the usual contributions in scholarly research." As a result, he was penalized.

So educational innovation is a dangerous game to play. It's like investing in high-risk companies in the stock market. Every once in a while you'll pick a winner, but the number is small; it's like being a venture capitalist. The number that you pick that fail is substantially larger than the number that you pick that win. And that's a good example of it, I'm afraid.

The inertia of the academy is one of the largest inertias known to humankind. It's of comparable magnitude to the inertia of the Roman Church to offer a, I think, a suitable comparison. It's every bit as fixed in its ways. It loves to opine about other people's problems and how to solve them, in both instances.

LaBerge: [laughs]

Academic Senate Policy Committee

Pister: The university curia is just as outspoken as the Roman curia, in my view, although interestingly enough, in the university the curia is the faculty!

Okay, let's see. Moving on. In the Berkeley division in 1975, I was asked to be chair of the Senate Policy Committee. The Senate Policy Committee was a consequence of the turmoil of the 1960s. It was created in the late 1960s by the Berkeley division to act as a kind of an emergency group, an emergency executive committee, that would be able to act for the division should some event on the campus require an immediate senate response, because the machinery that convened the Berkeley division was simply too ponderous to allow a quick response, and events moved too quickly. I remember Mike Heyman was one of the early chairmen of the Senate Policy Committee during those days.

By the bylaws of the Berkeley division, the chair of the Senate Policy Committee was also vice chairman of the Berkeley division. The first year that I was senate policy chair, the chairman of the division was Jack Raleigh, the late Jack Raleigh, I should say. The second year I was chair of the committee, the division chairman was Bob Connick. So I met two colleagues that I had known before. Jack had been vice chancellor for academic affairs on the Berkeley campus. So I got to know Jack in the early seventies in that capacity. Bob Connick I had met when he was executive vice chancellor. I had been appointed chairman of my division, in structural engineering and structural mechanics, a very unhappy chairman who had to appeal his case to the dean, and ultimately a visit to Bob Connick to express the view that an academic officer in the summer ought to get some compensation.

LaBerge: Right, and I think we've talked about that. And you got it. [laughs]

Pister: I did. Bob Connick was kind enough to hear me. Bob and I became very good friends, having been reacquainted in this year ,'76-'77, that we spent together. There are some interesting things that I want to comment on in that two-year period. First, [laughs] the words of Jack Raleigh to me--I hope I haven't said this already. He once said to me, "The trouble with you is you're trying to do good. You should just prevent evil." I've often thought about those words of advice from Jack. I have a recollection of talking about this policy committee.

LaBerge: Yes, I think we did, and I'm not sure in what context. But we did.

Pister: Because there were some wonderful people on that committee. The other thing, in 1976 I served on a review committee for what was then called the Center for Research and Development in Higher Education, since renamed. I remember Budd Cheit was part of that review committee. I think that probably was my first contact with the center, a contact which I've been really pleased to continue to the present. I think it's one of the really shining spots in Berkeley that is not well known to many faculty, but it's a place where people from very different academic disciplines can get together to talk about issues in higher education, both in California, in the United States and internationally. So I'm pleased to see my association with that center has a long history.

[Not long after this symposium I was surprised by a phone call from Provost Paul Gray. He indicated that the incumbent Interim Director of CSHE, Mike Heyman, had asked to be relieved of the position and that they both thought I would be a suitable replacement to serve until the search for a new director had been completed. I accepted a six-month appointment, effective July 1, 2002. Alas, at this date the search is still in progress and I remain Interim Director. I have had the good fortune to call upon Marian Gade, long-time Research Associate for Clark Kerr, to serve as Deputy Director.]

LaBerge: Maybe we better say for the tape what its name is now. It's the Center for Studies--

Pister: Center for Studies in Higher Education, CSHE. For the record, the center just put on an interesting symposium on oral history and particularly the history of the presidency in the last two presidencies prior to Dick Atkinson. I had the great pleasure of chairing a panel discussion of the history and evolution of the presidency with Emeritus Presidents Kerr and Peltason and Emeritus Chancellor Heyman and Emeritus University Professor Neil Smelser. That happened just a week or so ago.

Stanford Research Institute International

Pister: Another interesting assignment that I had was to join first a National Research Council planning group on engineering education to determine the feasibility or the need for establishing a permanent board of the National Research Council that would be focused of engineering education. So I was a member of that planning group, and then subsequently I was surprised to receive a phone call from one of the people in the National Research Council asking me to be the chairman of the newly established board of engineering education. I think I've spoken of that before, on engineering education, but it came about through my participation on this planning group.

One more project in this general area was a committee that I served on that I found to be quite interesting. I was asked by Stanford Research Institute International to take part in--as a member of a panel, to review the role of the National Science Foundation in supporting research that enabled technological innovation. So we looked at a whole series of technological accomplishments over the past decades and examined them and then made recommendations as to which ones we thought might lend themselves to an interesting historical review to see who was responsible for it, how it came about and whether or not the NSF had a role. We met over a period of a couple of years several

times, and there was an interesting report put out showing the leveraging effect of the National Science Foundation in this area.

LaBerge: How would you be appointed to those boards, by virtue of being dean, or by something you had published, or--?

Pister: Well, actually, I think I was appointed to that board after I had become chancellor at Santa Cruz, and I don't remember how I was picked. It was someone in the Stanford Research Institute who had responsibility, someone from the Washington office of SRI, I think, called me, but I've lost touch. I think certainly visibility as a dean of engineering and taking part in the National Research Council activities over a period of years was probably responsible.

The only other thing I would add I guess just for completeness in the record, during the time I was dean, I continued to do some consulting work for the Lawrence Livermore National Laboratory. I note in my record that I took part as a member of a review committee for engineering in the late 1980s. Then when I went to Santa Cruz, I had to drop those activities because I was totally committed to working on the Santa Cruz campus essentially or in Washington on things that were related to the campus. But when I returned to Berkeley after retirement in 1996, I reconnected to Livermore, and in fact for the last five or six years now I've been a member of the director's review committee for the engineering directorate at Livermore. So that I've spent a week or so each year, along with other colleagues on the review committee during two visits, making an assessment of the programs in the engineering directorate at Livermore.

LaBerge: Was that what you were doing last week?

Pister: In fact, that's what I was doing last week, and I've been chairman of the committee for the last four years, examining the quality and nature of the work and making a report. This is part of the university's management contract with the Department of Energy. Each major unit at each of the two laboratories, Livermore and Los Alamos, by terms of the contract have to have a review by an external review committee each year in four designated areas. The committee has to give a grade on the quality of performance in each of four areas. So that's what I've been involved in. It's been a very interesting experience, particularly to see how as the political scene in the world changes, how the mission of the laboratory, which has been and continues to be focused on national security, has evolved by virtue of new threats to our national security. Whereas at one point in Livermore's history, it was focused almost exclusively on nuclear deterrents, now, given the events of last year, it has a much broader role and opportunity to assist in providing national security than it did in earlier years. So I'm pleased to be able to continue to contribute to that work of the laboratory.

LaBerge: Your colleagues on that committee, are they also from UC or are they from elsewhere?

Pister: Well, it's a mixture. Mostly from outside UC. Yes. Well, Germaine, I think that pretty well brings the curtain down on professional activities.

XII. UNIVERSITY SERVICE

College of Engineering Committees on Mathematics and Teaching

LaBerge: So are we going to go to Academic Senate committees?

Pister: In the grand scheme of things in the University of California, "proper work" of the faculty, as it's called, consists of teaching, research, and service. And service is usually described as university *and* public service. What I'd like to do here is reflect for a while on the university service commitment that I was involved in over the fifty years that I've been involved with the University of California.

LaBerge: I have all your bio-bibs here just in case we need to refer to anything.

Pister: Okay, [laughter], good. When I went back and looked at the chronological record of service, it surprised me to note that the earliest committees that I have record of were committees of the Department of Engineering. This was in the early 1950s, specifically 1952, academic year, which was the first year that I was back on the faculty after my Ph.D. I notice that I was a member of a special committee on applied mathematics and a special committee on teaching for the Department of Engineering. I think I've already remarked that there was a single department. In other words there was a College of Engineering with only one department. That gave the dean extraordinary control over things since he was department chairman and dean, something that he, I think, was quite deliberately in favor of. [laughter] As a matter of fact, I think it caused him some difficulty with Chancellor [Clark] Kerr later on in his career.

LaBerge: And we're talking about Morrough O'Brien?

Pister: Yes, Morrough P, Morrough Parker O'Brien or "Black Mike" as some people used to call him. A very strong man who deserves an enormous amount of credit for putting the College of Engineering at Berkeley on a course that ultimately, after he retired, brought it to being in the top one or two or three engineering colleges in the United States. It's stayed there ever since the 1960s. Mike really laid the foundation for that.

I don't have any recollection of the special committee on applied mathematics, although mathematics for engineers has always been a struggle at Berkeley as it is on many campuses, because the math department, typically in research university campuses, is focused on pure mathematics, and teaching applied mathematics to anybody, particularly engineers, is not an appealing thing. So that both the content and the pedagogy associated with mathematics for engineers is a point of contention between engineering and mathematics. I imagine that committee was appointed to try to address that issue.

LaBerge: So do engineers take math in-house then or not?

Pister: Well, they take math in the math department in the lower division to be sure. But here and on perhaps many other campuses--but let's talk about here--what has happened is that certainly there are areas of mathematics that are best taught by mathematicians. But there's a lot of applied mathematics that has migrated into the College of Engineering in individual courses, particularly at the graduate level.

LaBerge: That was one of your fields.

Pister: Yes, I did a lot of work. In fact I continued to be concerned about the teaching of mathematics even the time I became dean. I think the only really what I would call nasty letter that I ever wrote as a dean, I only wrote one such letter early on in my career, was to the head of the math department complaining about this very issue. Then I learned, I think, an important lesson that if you want to persuade people, you don't get them mad at you. So I changed my philosophy early on in my tenure as dean. I tried to maintain that philosophy ever since, that when you have a problem with someone or some organization you have to resist the temptation to come down on them and put them in a corner because you're never going to resolve the issue satisfactorily when you do that. I coined the term, let's look for a "constructive solution" to the problem. My executive assistant, Billie Greene, was quite good at that, reminding me if I had the temptation to come down too hard on someone.

I do have a recollection of the special committee on teaching. I think the chairman of that committee, this was 1952, was a wonderful colleague from mechanical engineering by the name of Al Levins who was a great teacher, a kind of an anachronism in the university of the 1950s and sixties, less so in the fifties, in the sixties and seventies when Berkeley really went gung-ho into research and paid less attention to the teaching. Al, I don't think did any research to speak of. So he was committed to teaching. I remember meeting with that committee and holding some sessions for the college on teaching, sessions that were typically very poorly attended. So early on in my career I had grassroots input to the problem of promoting and rewarding good teaching in a research university setting.

University Library

Pister: The next committee I would mention, I see I was appointed in 1955 to the Berkeley division University Library Committee. That was a particularly interesting committee. It was chaired at the time by Jim Hart, professor of English and ultimately--not at that time-

-the director of the Bancroft Library. A person that I got to know later on much better than I did when he was a senior professor and I was just a young assistant professor. At that time Jim met the committee over dinner in the Faculty Club, and that was quite a step forward for a young faculty member to be able to go to dinner and have a committee meeting at the Faculty Club. Another member of that committee who went on to gain considerable notoriety, particularly after he left Berkeley, was an associate professor of psychology at the time, Alex Sherriffs.

LaBerge: Oh yes! [laughs]

Pister: Apart from remembering Alex and having met him during this committee, my recollections of Alex are two-fold. He had some responsibility later on in the chancellor's office. He was an assistant--

LaBerge: He was vice chancellor.

Pister: Vice chancellor for Student Affairs. Anyway, his great moment came with the Berkeley panty raid.

LaBerge: [laughs] I don't know about this. Is this before FSM, I guess?

Pister: This is before FSM in the good old days of the Greeks. There was a rash of fraternity boy pranks, rushing into sororities and basically invading sorority girls' rooms and stealing their undergarments. Alex Sherriffs was right in the middle of that, [laughter] trying to deal with the disciplinary action that was associated with these unauthorized interventions. So that's all I can remember about Alex at Berkeley. But he did go on when Governor Reagan became governor, to become Governor Reagan's higher education advisor. I remember his essentially--well, I'll try to put it a different way--he was viewed as a Berkeley faculty member who was a turncoat because he was very much against everything that Berkeley was doing, and we felt advising the governor in very unproductive ways. So much for Alex. I have no idea what happened to him. I think he went back into the CSU system somewhere in the chancellor's office subsequently, but he's certainly retired by now, I'm sure. Anyway so much for the library committee.

Academic Senate Committee Appointments

LaBerge: How did you get, tell me about going to your first senate meeting that you remember, and how you get appointed to committees?

Pister: Well, the committee appointments to the Berkeley division committees are done by the Committee on Committees of the Berkeley division. As you probably know, the Committee on Committees is the only elected committee of the Berkeley division. So they make the appointments. And at that time--the only reason I think I ended up on the Library Committee was that my senior colleague Egor Popov had also been a member of the Library Committee, and he went off the committee, and perhaps he suggested me. I have no idea. But that's basically the way the things went.

LaBerge: Is it something you can refuse?

Pister: Oh sure. No, committee service is not mandatory. It's very much, in my view--and I, to take a moment out, I remember writing about this much later in my career when I was chairman of the Academic Council. The Academic Council put out a newsletter called *Notice.* I remember writing an editorial in that, talking about the importance of a faculty member's recognizing a dual responsibility, a dual citizenship on the campus, on any of our campuses. First of all, a responsibility to participate in the affairs of one's department and college on the one hand, and on the other hand to take responsibility for the campus through the Academic Senate, the Berkeley divisional Academic Senate, to attend meetings, to vote and when called upon, to serve on committees, because it's the core of shared governance in the University of California. When a faculty member shows any kind of reluctance to do this, it's basically failing to recognize the symmetry or the duality of responsibility and freedom that you have in the University of California in the way it's administered.

So this was my introduction. I think, I don't remember how long I served, but it was an interesting beginning. I don't have any recollection of senate meetings in that period of history. The first early vivid recollections I have we'll talk about in connection with the Free Speech Movement.

LaBerge: Okay. We're talking about the Academic Senate, and I'm wondering, like when you were hired, did Professor Popov or anyone give you advice as a young faculty member and say, "I think you ought to come to this meeting with me?" Or how were people encouraged to go?

Pister: You know, I don't--

LaBerge: You don't remember anything like that.

Pister: --have much recollection. Of course, I had been on the faculty for two years before--

LaBerge: That's right.

Pister: --and came back. And I attended meetings of the division then.

LaBerge: So it was maybe natural for you to just to get involved.

Pister: I think so. I think I've spoken about this before. In the late forties certainly and into the fifties, there was still a very strong residual of faculty allegiance to the institution. Institutional membership and allegiance probably at that period of history was stronger than disciplinary allegiance or just as strong as disciplinary allegiance, because Berkeley was on its way to becoming a, I'll use a term of art, a Carnegie I research university, but it didn't know that it was yet. It was in its process of development during that period. So there was a strong sense of identity with the campus. That was manifest in attendance at senate meetings, divisional meetings--. And not only that, in the items that were on the agenda and the degree to which these items appealed to people to take issue with or to support particular points of view.

In those days there was a substantially larger core curriculum, or to put it another way, there were divisional requirements for degrees that have all but disappeared. I think the American Studies requirement now is the only Berkeley campus or Berkeley divisional Senate requirement for graduation. Everything else is basically, I'll use the term, abdicated to the college and usually even in the college or school to the department. Even though strictly speaking, the approval of a curriculum leading to a degree is a matter for the division and not for a college even. The faculty of the college recommends a program to the divisional senate. But that's changed dramatically. So in the earlier years there was a great deal more interest, more debate on issues like what is an appropriate balance of electives versus core, and so on.

More Engineering Committees

So, continuing with my interaction with colleagues on College of Engineering committees, I served in my department, in the division of my department, the structural engineering and structural mechanics division, I was a vice chairman for graduate studies. So I served on the graduate study committee of the college by virtue of that appointment for a two-year period. But prior to that I note I was a member of the college of the undergraduate study committee. Both of those committees in the College of Engineering were significant committees because they had to do with curricular matters and degree matters for the College of Engineering. It gave an opportunity to influence educational policy because the committee typically made recommendations for the faculty of the college, ultimately, for approval or for modification or rejection.

Another committee that I'd like to mention was a committee on engineering science. That committee had responsibility for an interdisciplinary program in engineering which was created right after World War II, a curriculum in engineering science with different programmatic emphases. At that time I think that the most popular one was a program in engineering physics, which not only was the most popular, it was the first and for a while the only program in engineering science. Today there are many programs in engineering science that cut across not only departments in the College of Engineering but bring in subjects in biology, chemistry, physics and mathematics as well, at the graduate level, as well as the undergraduate level. So it's a very popular major in the college today. Bioengineering is a perfect example. It was a program in engineering science. Now bioengineering is a department at Berkeley and San Francisco.

So I was a member of that committee, and I met several colleagues who were excellent role models in my own career. One was Professor Sam Silver, who was a professor of electrical engineering, and later I think he was a founding director of the Space Sciences Laboratory at Berkeley [the NASA laboratory], a wonderful person that I interacted with outside of the campus as well. He was a member of an ecumenical group that I was a member of in the 1960s. In fact, he and his wife, along with my wife and I, were present at the first seder that I ever experienced, at the home of my very dear colleague Boris Bresler and his wife Joy. I remember Sam had been a cantor in the temple, and he was able to give us the chants in Hebrew at that first seder.

Another committee that again put me in touch with a colleague that has been a very close and dear friend ever since was the Committee on Largescale Systems that I was appointed to. And the chairman of that committee was Professor Lotfi Zadeh. Lotfi at the time I think was chairman of electrical engineering. At that point it had not been joined with computer science. But Lotfi over the years has been a person that I've often talked to. He's a man of incredible brilliance who was the father of a field called fuzzy logic, which in spite of its name has been a major factor in providing applications to all sorts of interesting systems, electronically controlled systems as well as other areas. This has had a sufficient impact on technology that Lotfi received a very handsome prize from Japan some years ago. Anyway I met Lotfi there, and Lotfi has helped me with research. He has helped me in a variety of ways over the years, I've always been grateful that I had a chance to get acquainted with him early on in my career.

LaBerge: As you're talking about these committees, you often mention the importance of the relationships you've formed, but a lot of this wouldn't have happened if you didn't work together on committees.

Pister: That's it. One thing I would draw out of this is that of course the committee is convened or established for a purpose, and that purpose may or may not have a significant impact on anything on the campus. However, the relationships formed with colleagues often transcend the business of the committee in their eventual importance.

LaBerge: [laughs]

Pister: Some are continuous committees, like the Graduate Study Committee. There always has to be a Graduate Study Committee to deal with petitions of students, with issues concerning graduate education. Some are more ad hoc like the Committee on Largescale Systems, I don't remember now what we did on that one. But I do remember this association began there. I think that's the most important thing--and I've remarked on this before I believe, that the associations that one makes in one's career, the people that you meet, get to know, to work with, are far more important than the knowledge that's produced, in my view. They're not mutually exclusive surely, but there's so much emphasis placed on the discovery of knowledge that it overlooks the fact that the knowledge by itself is passive--that there has to be an active role to utilize knowledge, and that active role is fulfilled by or taken by people. The ability to move an idea, the ability to apply knowledge is so tightly connected to creating a team or a group of people who can work together that I think I can't overstress that valuable education that I received and the valuable associations that I made with people.

Academic Senate Representative Assembly

Pister: I note then that in 1971 I was a member of the representative assembly of the Berkeley Division, which suggests that in the early seventies the Berkeley Division was having trouble getting a quorum at its meetings, at its divisional meetings, so that a representative assembly governance structure was born so that the representative assembly could do the more or less routine business of the division. And the division

meetings I think were cut back to once or twice a year. I don't remember exactly when that happened, but it must've been in the late sixties or early seventies.

LaBerge: Do you think a fallout from the Free Speech Movement or--?

Pister: I don't remember now. It's just that people weren't going to the division meetings anymore. Certainly during the heyday of the Free Speech Movement, the division meetings were packed. But I think afterwards there must've been a lull. And I think now the division has even moved to a less representative structure. There's an executive council of the division that runs the affairs of the division now with a once-a-semester division meeting. But I have less recollection of that than the committees that I served on.

Committee on Educational Policy, Berkeley Division, and Universitywide Chair, 1971-1973

Pister: The first significant committee of the division past the Library Committee was my appointment in 1971 to the Committee on Educational Policy. That one I remember very well because I served for a year, and that it was responsible for my appointment in the following year as a member and actually chairman of the committee and the University Committee on Educational Policy.

LaBerge: Which is different than just the division?

Pister: Yes. Well, the University Committee on Educational Policy is a committee of the Academic Assembly of the University of California, not the Berkeley division. So there are representatives from educational policy committees of each of the divisions of the nine campuses. I was made chair of that committee, and I was also a chairman of the Berkeley Division Committee on Educational Policy in 1972. I don't know whether it was because of me [laughs] or what, but I think in the subsequent year, there was a senate regulation passed that you couldn't be chairman of both your divisional committee and the University Committee on Educational Policy. At any rate--

LaBerge: Tell me what you did and how much time that took.

Pister: Well, I'll get to that, right. First of all, I owe my chairmanship of the University Committee on Educational Policy to my colleague Boris Bresler, because Boris was at the time a member of the University Committee on Committees, universitywide Committee on Committees. I remember him telling me, he said, "Well, you were certainly nominated since you were chairman of the Berkeley division committee. You were nominated to be a member of the committee, but they were struggling to find someone. So I said, 'Well why not this guy from Berkeley?'"

And this is important because it put me on a course of service that I might not have otherwise have had, because as chair of the University Committee on Educational Policy, I became an ex-officio member of the Academic Council, which is the executive entity, the executive branch of the Academic Assembly of the University of California. The Academic Council basically is charged with conducting the universitywide senate

business, adopting, modifying University of California Academic Senate regulations, which are above and beyond the divisional regulations. Also, the Academic Council has the responsibility of representing the Academic Senate's view to the president and the officers, the universitywide officers of the university, as well as being responsible for representation on the Board of Regents. So this was a whole new experience to meet with the leaders of other campuses once a month.

The chairman of the council at that time was a professor of psychology at Riverside, Sally Sperling, and she was really the first female faculty member that I got to know. At Berkeley there were relatively few, certainly there were no women in engineering, and I don't even remember on the senate committees, those early committees--on educational policy there were, yes, there were several women. Anne Middleton, in English, was on the committee. I remember Anne well. But there weren't that many women in senate affairs in those days. So it was educational, as well as interesting, to meet Sally and to experience and be part of a council that was headed by an extraordinarily adroit and together person, Sally Sperling. She and I became quite good friends.

Coordinating Committee for the Extended University

Pister: The second thing I would say about that Academic Council year, '72-'73, was that I was also, by virtue of being chair of the Educational Policy Committee, made chair of a group that was called the Coordinating Committee for the Extended University. This was a time during the presidency of Charles Hitch when as a result of an All-Universitywide conference, President Hitch decided to try to reach out from the campuses creating satellite operations to attract more people to be of better service to the people of California and to basically take the university out past its walls.

The vice president that had responsibility for the extended university was David Gardner, and I still remember the occasion on which I met David. Since he had that responsibility for the president, and I had responsibility of the extended university for the senate, it was natural that we should become acquainted because we were going to have to work together during that year. So I remember having lunch with David at the Faculty Club sometime, it probably would've been in the fall of 1972. And immediately hitting it off well with David, liking him from the very beginning. I remember subsequently during the year, I think at the last meeting of the council in 1973, making a special point of complimenting him on our association and really appreciating the way that he worked with the senate.

That Coordinating Committee for the Extended University was a very interesting and important committee at that particular point because there was a push to create a whole, you might say, off-site set of courses. The extended university extended beyond the boundaries of a single campus so that there had to be a faculty oversight group that took responsibility for the academic affairs of the extended university. This committee that I chaired had that responsibility. We had delegated authority from the Academic Assembly to act as a committee for the senate for the extended university. So we had to approve courses and programs.

LaBerge: Would you go visit also or--?

Pister: No, I don't remember doing that actually, but we read a lot of paper that passed over, through our committee that I remember. [Laughter] The interesting thing is to the best of my knowledge--the extended university only existed for a couple of years, and Governor Reagan whacked the money out of the budget.

LaBerge: How does it differ from the Extension?

Pister: It was different from Extension in the fact that this was part of the direct responsibility of the senate and was part of the instructional budget. Extension is not, in terms of academic matters, is not totally by itself either to the extent that courses that Extension offers are submitted for credit on the campus, there has to be university oversight, senate oversight. The non-credit courses, of course, are entirely the purview of the Extension dean. The credit courses used to be called X courses. I don't know if they still are. Of course, X-whatever-number on a campus means that it's a course given by Extension, but a course that's been approved by the Academic Senate of the division of that campus. However, Extension is self-financed and not supported by the instructional budget.

LaBerge: Could we go back to Committee on Educational Policy?

Pister: Yes.

LaBerge: Could you give me an example of something, an issue you might decide in that?

Pister: Hmmm. [laughs]

LaBerge: Well, I have a thought [laughs]--.

Pister: No, let me think. At Berkeley, I remember there were several issues that came before us of significance. One was the proposal to abolish the design department. It used to be at an earlier period of history the decorative art department. I think my wife took courses in dec. art here in fact in the late forties. So this was Chancellor [Albert] Bowker's term now. Chancellor Bowker decided to abolish the Department of Design and to abolish the School of Criminology. Those things typically would come to the Committee on Educational Policy for a recommendation. These recommendations then are transmitted to the administration of the campus or in the case of things coming from the Academic Council, to the president of the university.

LaBerge: How much would what you decided weigh in the decision?

Pister: Well, it is always difficult to tell. Because a chancellor or a president is only required to seek the advice of, but not be bound by the advice of the senate. The regents make that very clear in the position descriptions both for a chancellor and for the president, the only two job descriptions that I'm aware of that are present in regental standing orders. No, from my own experience, recommendations of senate committees have to be given serious consideration, but if, as the chief executive in whatever position you're in, you weigh the advice and can come up with cogent reasons for not following the advice, I found that's satisfactory. All but the most extreme folks on the faculty will accept the idea that if their position is given serious consideration, that's okay. That's enough, even

if you disagree with the position. I found that true when I was dean and when I was chancellor. Of course, if there's an absolute unwavering set of [laughs] refusals to accept recommendations, then I think you build yourself into a corner. You have to show good faith. If you never take their advice, that's another matter.

Where Does Tenure Reside?

Pister: I was apparently on, I've forgotten this, on the advisory council for the extended university as well, in connection with this coordinating committee, but I don't ever remember what I did on the advisory committee. I do remember another committee. This was a special committee of the Academic Council. It was a Committee on Contingency Planning. During the early seventies both Santa Cruz and Riverside were in serious trouble because their faculty FTE was far richer than student workload would justify. So President Hitch, through his vice president, who at the time was Chester McCorkle, a name that I'm sure you remember--.

LaBerge: I do. I've heard it in many interviews. [laughs]

Pister: Yes. Anyway, Chet McCorkle tasked us to give a senate recommendation on contingency planning. In other words, if you had to reduce the faculty FTE on a campus, what would be the process? I remember having some very, very long and serious discussions about setting up a protocol for termination of faculty, and during that discussion certainly I remember well the question coming up, is tenure a campus issue, or is it a universitywide issue? Where is one's tenure: on a campus or in the University of California? I think general counsel at the time--it was Judge somebody or another, I can't remember his name now--opined that tenure was clearly a campus issue and not a universitywide issue. We were looking at setting up a protocol for transfer from one campus to another. Under what conditions would or could a faculty member, say in mathematics, be transferred from campus X to campus Y? What would campus Y have to do? Those issues by the way came up again, I believe, in the 1990s. I can't remember when, during the early part of the 1990s when the budget crunch was so severe.

LaBerge: On the same campuses, or--?

Pister: No, the whole issue of termination. It wasn't specific to a campus, just we were worried about downsizing the university because of the budget crunch. To the best of my knowledge, in that dark period in the early seventies, there was never implemented any policy of terminating faculty. President Hitch, later President Saxon, I think went along with allowing the campuses to be over-resourced with the expectation that they would build up their workload. And in fact that's ultimately what happened, of course. But there were some very dark moments, and there was even talk at one time about closing Riverside, I remember.

LaBerge: Wow. In the seventies.

Pister: Yes, in the early seventies. I imagine the ill-advised move that would've occurred now that Riverside is the fastest growing campus in the system.

LaBerge: So what did--the general counsel made the decision that tenure was on the campus, but did your committee come to that same conclusion?

Pister: I'm not sure where we came down, because I think we were very anxious to make it possible for a faculty member that was terminated on one campus to move to another campus. But the stickler there of course is the receiving department there has to be willing to take the individual. So there's all kinds of review problems attendant to that. But as I said I don't think that ever happened, but that was one of the issues that I remember in contingency planning.

LaBerge: I notice that in the year before you were on a council for special curricula.

Pister: Oh the Council for Special Curricula. That was an invention at Berkeley.

The Academic Council, 1978-1980

Vice Chair and Chair

[37B]

LaBerge: Okay, we're going on to the Academic Senate committees.

Pister: I think I mentioned this earlier, but I'll, just for continuity, repeat. While I was on sabbatical leave in Germany in 1978, on my way back to the United States in the Frankfurt airport, I received a telephone call telling me to call my office in Stuttgart, which I did. They said that, "You have a telegram from Jack Raleigh from the Berkeley campus, and he wants you to contact him because he wants to know whether or not you would accept an appointment as vice chairman of the Academic Council and Assembly of the Academic Senate." I had already served on the Academic Council, of course, six years earlier, by virtue of my chairmanship of the Educational Policy Committee. So I remember then flying back to the United States. I think I went to Chicago, and I called Jack from Chicago and said, "I'm going to be back in Berkeley in a week and a half or so, and we can talk then." I did come back, and I was of course flattered to be asked to be vice chairman of the council because I would be vice chair for a year and then chairman the next year.

But this was complicated by the fact that earlier the chairman of the Committee on Committees of the Berkeley division, Diogenes Angelakos, had told me that since I'd been chair of the Senate Policy Committee and vice chair of the division, he asked me would I be willing to be chairman of the Berkeley division. I said, "Sure. I'd be happy to accept that position." So I'd already committed myself for '78-'79 to be chair of the Berkeley division. Well, then I talked to Jack and talked to Diogenes, and I decided to go with the Academic Council. So I never was chair of the Berkeley division, but I was vice chairman for two years. So I became--

LaBerge: How did you make that decision?

Pister: Well, I'd been on the council, and I guess the thing that interested me was an opportunity to work with colleagues on other campuses and to essentially work with the president of the university, who was David Saxon at the time. So I accepted the vice chairmanship. The chairman that year was Bill Frazer from the San Diego campus, a physicist that I had not known. But we became good friends, and in fact dating from '78, we started to work together, we've been friends ever since and have been involved in a number of activities together over a number of years, including the time when he was senior vice president of the university.

As vice chairman and then in '79 chairman of the Academic Council, I was also an ex officio member of the University Committee on Academic Personnel, the University Committee on Educational Policy and the Committee on Committees. So I had a chance to meet a wonderful group of people whose friendship really transcended that period of time during the rest of my career in the university. I still run into people that served with me during that two-year period.

Before I leave this, I think I've talked already about the awkward situation when I had to deliver the resolution on Chancellor McElroy at San Diego.

Influence of Angus Taylor

LaBerge: Yes.

Pister: But something I don't think I've talked about goes back to my earlier service on the council when I was chair of the Educational Policy Committee--in those years, unfailingly Angus Taylor, who was vice president of the university for academic affairs, attended every meeting of the Educational Policy Committee.

LaBerge: Was that his job to do that, or did he just like to? [laughs]

Pister: Well, he had responsibility for academic affairs, and Angus was one of the very early chairmen of the Academic Council, back in the sixties. In fact Angus was chair of the council when Clark Kerr was fired. He was right in the middle of that whole issue, and that's all written up in his book. But Angus really enjoyed interacting with the faculty. He was a real senate person. He really loved and respected the senate having come up, very much like myself, I spent more time on the senate side, at least up to a certain point, than I did as a member of the administration. So he came to all of the meetings. He listened and never interfered, but I still remember, I think it was a meeting down in Los Angeles, after the meeting he came up to me and said, "You know, Karl, you are the most suspicious faculty member I've ever met."

LaBerge: [laughter] Not meaning people were suspecting you, but that you were suspecting other people.

Pister: That I did. And he meant that, of course, that I suspected that the administration of the university was up to no good most of the time. I think I caught some of that from my colleague Sally Sperling from Riverside who was a psychologist. I think she saw a conspiracy very often when there was only marginal evidence for a conspiracy.

At any rate, in fact alas, I hesitate to put this in the record, but since I mentioned her I should. Sally actually had a couple of very unfortunate things happen in her career. She was very upset at a certain period of time, the end of David Saxon's administration, about salary recommendations for senior people in the university. I don't remember--

LaBerge: In the administration--?

Pister: Yes, in the administration--I don't recall what her role was, but she wrote a letter to David, very upset that the chancellors and vice presidents were getting too much compared to the faculty, and she resigned from something that the president appointed her to. So she was disillusioned by the administration. Later on Sally, who was an experimental psychologist, dealt with animals, or birds, I can't remember which. And someone trashed her laboratory at Riverside and basically destroyed all of her research database, and she felt that the university really never came back to her rescue to make her whole again. So she took early retirement and became very embittered.

Herma Kay was a very close friend of Sally's, and I tried to keep in touch with Sally, but ultimately I gave up. Herma still continued to talk with her. She really became very embittered about the university and it was difficult to talk to her. I felt bad about that because she was such an inspiration to me. In fact I owe her a great deal in teaching me about the senate and how to behave as council chairman for example, and so it's one of those sad things in life that I've never been able to straighten out for myself.

Whereas on the other hand, Angus in spite of his critique of my sense of conspiracy, was for me a wonderful friend and a great supporter. I don't know if I had mentioned this earlier, but when David Gardner asked me to go to Santa Cruz as chancellor, the first person I talked to was Angus Taylor and asked for his advice. I think I mentioned this already, but I didn't realize that David had already met with Angus and Clark Kerr--who was the third? Anyway--

LaBerge: Harry Wellman maybe or Dean McHenry or--?

Pister: No, I don't think--there were three, but anyway Angus and Clark were both involved.

LaBerge: I want to say for the record too, Angus was chancellor at Santa Cruz for a short time.

Pister: Yes. Angus was chancellor for about fourteen months, I believe. He went down under circumstances very much like my own. The campus was in a turmoil. The predecessor chancellor, Mark Christensen, had had difficulty with the faculty and was forced to resign. So Angus went down again to calm the campus down so that the president could recruit a new chancellor who turned out to be Bob Sinsheimer. In the same way my predecessor, Robert Stevens, got crosswise with the faculty and had to resign, and David Gardner asked me [laughs] to go down to calm the place down so he could recruit for a chancellor.

So Angus and I had a lot in common in terms of our involvement in the senate. We had both been senate chairs. Of course, he had been a vice president, I had been a dean. I think he was a department chairman, I don't believe Angus was ever dean. But we shared a lot of things in common, and he wrote a history of a famous French mathematician, and it was a mathematician whose name I knew and whose results I've used; it was another interesting tie. He was a great mountaineer as well. In fact he climbed the Matterhorn as a young man and spent many summers in Switzerland with his family. He was a very dear man, and I'm very grateful that I had the opportunity to visit him in the hospital the day before he died and was able to spend a half an hour talking to him, and had a wonderful conversation with him just before his death.

Issues at the Regents' Meeting

LaBerge: When you were chair of the Academic Council, who was your vice chair?

Pister: Ah, that's a good--I'm glad you brought that up. My vice chair was Ben Aaron. Ben was a professor of law at UCLA, and a very wonderful guy that I have seen since on several occasions at regents' dinners--the formers, they call it the formers' dinners. [laughter] Ben and I got along very well, and I enjoyed knowing him, and we complemented one another in terms of our background and expertise. I remember very well that Ben helped me out on a committee that I had to establish by virtue of Regent Yori Wada. Regent Wada, who again was a wonderful friend, and a person that I respected greatly, Yori was a very liberal person, and at one point he asked the regents to support a resolution, which the president had to implement, that would require that any faculty member undertaking a research project would have to file a social impact statement before undertaking the research. That is, you had to try to predict what the outcome of your research might do to society.

Well, I think you can see the complexity of dealing with that. [laughter] It's like an environmental impact statement. On the other hand, it's about ten orders of magnitude more difficult since you have no idea, generally, when you undertake a research project, what you're going to find. You may have hypotheses, but that's why you're doing your research, to see. Anyway, so David asked me as council chair to set up a committee to address that issue and to prepare a report on that. Well, Ben was a very savvy guy. He was a labor lawyer, and I think he headed the committee for me. But the other thing that I did that I think was precedent-breaking in the university, because of his knowledge of agriculture and his general just good common sense, I appointed a chancellor to the committee.

LaBerge: [laughs]

Pister: That was Dan Aldrich from Irvine. Dan was a good friend, and he had had experience in agriculture with the impact of agricultural research on society, obviously. So I don't remember any other people on the committee, but those two I do remember, and they returned a report which predictably said this is an impossible thing to do. But that's the way, often the way regental matters go.

LaBerge: Do you remember what particular issues came up those two years that you were on the regents? I'm trying to remember at this moment. It was when David Saxon was president.

Pister: Well, yes. I remember one of the things, and I think I spoke about this in connection with, was it Proposition 9 or Proposition 64, I can't remember which one.

LaBerge: One of the Gann--

Pister: It was one of the Gann, Jarvis-Gann things. It was the son of Proposition 13. David Saxon really remarkably got out and said we can defeat this thing, and he wrote a letter to the parents of all the students in the university, for which he was sued by Mr. Leonard from the legislature, for using university resources--

LaBerge: Money.

Pister: --for political purposes. But at any rate, David was very courageous on that, and he--I think I talked earlier about the meeting with Governor Jerry Brown--

LaBerge: Yes.

Pister: --when David told him off, basically. But that was certainly a major issue.

LaBerge: Well, and I guess the budget was a big deal, because it was the Jerry Brown years.

Pister: Then of course--yes, that's right. Then of course, the whole issue with San Diego with the vote of no confidence with respect to Chancellor Bill McElroy, which led ultimately to his resignation and Paul Saltman's resignation as vice chancellor, although Paul remained on the faculty.

LaBerge: In those years, I also, I have written down that you were also on the Committee on Planning and Budget.

Pister: Well, okay, sure. That brings back to mind something: the budget team.

Dealing with the State Legislature

LaBerge: That's it.

Pister: Right. I was ex officio member of the university Committee on Planning and Budget as vice chairman of the academic council. But yes [laughter], you've uncovered a lapse in my memory. During those years, particularly the second year, but both years, as a member of the university budget team, I attended the hearings in Sacramento when the legislative committees heard our positions on issues, particularly issues that either they brought up, their staff brought up, or the legislative analyst's office brought up. In that period of history, the legislative analyst's office had a lot more clout in the legislature than it does today. The committee would typically ask for the LAO's position on an issue, the university's position--when you're talking about higher education--the university

position, the CSU position typically, and the Department of Finance, all of those would be heard by the committee.

In the assembly, there were two different chairmen that I remember very well. One was John Vasconcellos, and the other one was Gary Hart in succeeding years. I have very strong recollections of particularly the first year. The university used to send up an army of people to the budget hearings. That was something that I thought did not serve the university well to have so many people there. I think David Saxon got hold of that problem and turned the whole thing around. It was during the end of his tenure that he made the decision that there'd only be a couple of people going to these hearings in Sacramento. We wouldn't flood the place with university personnel, who in the eyes of the legislature ought to have something better to do than to come and sit in the back of the room. And usually you wasted hours and hours there because they were never on schedule.

Two things stick in my mind during the Vasconcellos era. Bill Leonard was an assemblyman from Riverside, and he was a very outspoken right-winger. I think I've mentioned I had an hour session with Bill Leonard over the Angela Davis presidential chair appointment later on in his career when he was a senator. Anyway, the things I remember are the assembly committee whacking, I've forgotten how many hundred thousands of dollars, out of the university budget because of an alleged snub of a member of the legislature by the Secretary of the Regents, Marj Woolman. Remember that Marj was the doorkeeper at the regents' luncheons, and if your name wasn't on the list, you didn't get into the lunch, and she stood there with a clipboard and checked you off. And evidently some legislator came to lunch, came to a regents' meeting, tried to go to lunch and she wouldn't let him in. So the result of that was that assembly committee whacked several hundred thousand dollars out of the university budget to penalize us for what Marj did. That's one incident I remember. Marj was a wonderful person. I talked about her earlier, and I became very close to her.

The second thing was my testimony before the committee when John was chair over the faculty time-use survey.

LaBerge: I think you have talked about this.

Pister: I've talked about that. So, those are the major recollections. I also remember an amusing thing. Shortly after Con Hopper, who was vice president for health affairs--I think he'd only been on the job for a short time--there was an incident at UC San Francisco that he was totally unprepared for--I still don't understand why it happened. This was when Julie [Julius] Krevans was dean of medicine, and Shirley Chater was I guess the academic vice chancellor at UC San Francisco. She went on to be head of the Social Security Administration in the Clinton administration as I remember.

LaBerge: She's the one who called him at Tuskegee to see if he'd be interested in that job.

Pister: Is that right?

LaBerge: Yes.

Pister: [laughter] I'll be darned. I didn't realize that. Anyway, poor Con came. The issue was, I think the North Dakota Twelve. For some reason not clear to me, the medical school admitted twelve students from North Dakota into the freshman class of medicine, and the legislature was simply appalled that they'd admit twelve aliens from North Dakota into the medical school. Julie didn't come up, Shirley came up to make the testimony. I don't remember how that came out, but again there were threats that, "We're going to kill you for doing that."

LaBerge: And Dr. Hopper had to defend this not knowing anything about it probably.

Pister: Right. Yes. He had just come on board, the poor guy. I can't remember, I talked to Julie subsequently in some past years when we were chancellors together and asked him about that. But I can't remember his explanation, but it was certainly a bizarre situation.

The other thing that sticks with me, that you will remember, Tom Jenkins who was vice president for business--. Tom had come from the navy, from ONR, I think, to the university. Typically, he'd be sitting in the witness table with Don Swain who was academic vice president. Two more dissimilar people are hard to imagine. But when asked questions about the university budget, Tom would never answer the questions. He was the most evasive person. I don't know why he chose to be that way, but it didn't do the university any good the way he gave that testimony. That's about it for --

LaBerge: For the budget team.

Pister: That was my one and only involvement. It was not the last involvement, but as a member of the senate, because the next time I appeared in Sacramento it was as a chancellor, or later on as a vice president dealing with the budget. But yes, that was a whole new life.

Impact of Academic Council Service/Shared Governance

LaBerge: Do you want to comment broadly on what that experience, being on the Academic Council and being a part of the wider university did for you and your career?

Pister: Sure. I think that's important. The fact that I had that experience in the Academic Council in the late seventies, I think that in part was responsible for my candidacy as dean of engineering because I had a broader sense of the university. It certainly was a major factor in David Gardner's mind when he asked me to go to Santa Cruz. He knew that I understood faculty matters, faculty concerns, that I was totally familiar with and comfortable with shared governance, the consultation process that a chancellor would have to go through. So he felt that this experience was probably going to be vital to any possible success that I would have at Santa Cruz. It was probably of exaggerated importance at that time because my predecessor there had absolutely no previous experience with the senate and with public universities, so that the contrast would have been very noticeable. That suggests an incident that makes the point.

[38A]

LaBerge: Okay, and you have an incident to talk about.

Pister: Yes. Okay. It wasn't the first senate meeting I attended because I went down to Santa Cruz in May of 1991 after I'd been named chancellor, interim chancellor, but I hadn't officially come aboard. I went down to be introduced by the chancellor to the Santa Cruz division. So at the next meeting of the senate, when I was already on board as chancellor attending the first meeting, there was some discussion about a bylaw, and someone from the floor made a motion to change the bylaw of the division from the floor. It was moving right along. So at a certain point I asked to be recognized. I said, "Well, I'm unfamiliar with the regulations of the Santa Cruz division, but I suspect I'd be right in guessing that a change in the bylaws of the division requires notice before the meeting, and I don't think you can make a change on the floor." There was stunned silence [laughter] because there were some real professional senators from Santa Cruz that were just a pain in the tail to deal with, and I nailed one of these guys in my first meeting. So I think that did not escape the notice of the faculty at Santa Cruz that the new chancellor was a guy that really understood the senate.

LaBerge: Because in fact that is the way it works?

Pister: Oh, of course. Yes, I think no organization allows changes in its bylaws without notifying the membership ahead of time. Otherwise, all kinds of hell [laughter] would be foisted upon organizations. Well, the rest of my senate experience was dealing with senate committees on the other side of the fence. So I moved from being "one of us" to "one of them," to use frequent faculty slang. But the fact that I had the experience in the senate and had some sympathy of the position of a faculty member, I think, has been very, very valuable in working with the senate as a dean or a chancellor or a vice president, because I do have a sense of what shared governance is there for and how it works. As I remember, I think I have already put on record the two instances where I had to explain this to two new chancellors, Chancellor Atkinson and Chancellor Rivera.

I think what I might do now is say something about another set of associations that are typically collected under the rubric of administrative committees. Senate committees, as the name suggests, are committees of the division or of the Assembly of the Academic Senate. There's a whole set of activities that go on, affairs that are conducted or studies that are conducted by committees that are appointed by the administration, typically by the chancellor, in which there's a blend of faculty acting as senate representatives and administrative officers reflecting the position of the campus administration, or a systemwide committee such as a search committee for a senior officer in the universitywide system. That'd be a blend of senate members from the campuses and vice presidents or senior staff officers in the office of the president. These are called administrative committees. I've been on, naturally, a whole slew of committees of that type as well. They are important because they typically are much more focussed on action items that have to be accomplished, things that a chancellor or president needs to know in order to conduct the affairs of the campus or university expeditiously.

One of these I've already talked about, I'll just repeat this as an example for the record. I was appointed by Chancellor Heyns to the advisory committee on campus rules during the last few years of the sixties. That was the committee where I had to take a tranquilizer ahead of time.

LaBerge: You know what, we've not spoken about that on tape. You told me about it--

Pister: Oh really, we haven't?

LaBerge: We haven't talked about the Free Speech Movement and the aftermath. So I don't know, do you want to start? I mean, it's a long--.

Pister: Yes, maybe I ought to pass over it. I'll just mention it, we can come back to it and talk about that one when we talk about the Free Speech Movement. An interesting one at the systemwide level that I served on by virtue of my vice chairmanship and chairmanship of the council, I served on a presidential administrative committee called the Academic Planning Program Review Board, APPRB. That was usually headed by someone in the academic affairs office, and an assistant vice president typically would handle that or sometimes Don Swain in the systemwide administration.

The APPRB was supposed to advise the president on programs from campuses that were sent up to the president's office for review before final approval, the academic programs of one kind or another. Later on in a different life I served under the senior vice president provost when I was a chancellor on a similar committee now called the Academic Program Committee. These groups were long on discussion and short on influence, I would say. In fact, after serving for two or three years as a chancellor on the latter committees, I think my most important contribution was to strongly urge the president to dissolve the committee. [laughter]

I remember the most dramatic example of that was spending hours of discussion on this issue when Walter Massey was the chairman, the senior vice president for academic affairs was. We had a long discussion about the issue of what to do with resources in DANR, dividing them up among Davis, Riverside and Berkeley and having special subcommittees look at this issue. After all is said and done, the president and the three chancellors decided the issue and I think ignored everything that was done.

I don't have very strong memories of the APPRB, whether or not we ever influenced anything, but an awful lot of effort was put into that committee. It's very hard in our system of governance to deal with issues affecting campuses from the presidential perspective because at this stage or even back just twenty years ago there was sufficient delegation to the campuses that a president was very reluctant to preempt what the chancellors wanted to do. That delegation certainly has a lot going for it, but it makes it very difficult to try to achieve any sort of economies that you could get by minimizing duplication of effort in fields where there is not high demand. We talked about that over the decades, do we need a program in X at every campus or not? That's what these systemwide program committees are supposed to look at, but even if they look at them and make recommendations, it's hard for the president to tell a chancellor on a certain campus, "Get rid of that program."

LaBerge: Do you remember ones that you were involved--? For instance, the fact that there's no other library school, or I'm trying to think of what else--.

Pister: In the nineties when I was in the president's office, the big issue was another law school. Should Riverside have a law school or San Diego have a law school? I mean, early on San Diego wanted a law school, and David Gardner said, "No, you can't have a law

school, but you can have a graduate program in international studies." Those are the kinds of things that are done. I think when Chancellor Raymond L. Orbach was still at Riverside, he wanted both a law school and a medical school at Riverside. If he had stayed, I think he [laughter] probably would have gotten them. I think they're getting a law school, actually.

LaBerge: I have it written down that you were on, this was in the seventies, a joint senate administration committee on the nature of Ph.D. programs. Or is that something we're talking about?

Pister: Joint Ph.D. programs?

LaBerge: Well, it was a joint committee of the senate and the administration on the nature of Ph.D. programs.

Pister: Okay. Well, that one has obviously slipped my memory. I don't know. Maybe we ought to call it a day.

LaBerge: And take up the Free Speech Movement and start freshly.

Pister: Yes, there are a few more of these committees that I'd like to talk about, but I think I'm kind of running out of gas.

President's Advisory Council for Engineering

[Interview 20: May 7, 2002] ## [39A]

LaBerge: Well, yesterday when we finished, we were talking about some of your administrative committees, and we were going to finish that and then go back to the council for a bit.

Pister: All right. I talked about some of the committees that I served on for the Berkeley campus, and I want to continue. There are several others that I'd like to mention. In particular, after becoming dean of engineering, I joined a group called the University Committee for Engineering Education, which was a committee of the deans of engineering in the UC system. That committee met typically with a group called the President's Advisory Council for Engineering under President Hitch and President Saxon. There was an external advisory committee, largely people from industry that advised the president on engineering educational policy issues. Actually at some point I think in the 1970s, that committee produced a very interesting report on engineering education and the needs of the state and what the capacity was to meet the needs of the state. Earlier, in 1965, the council produced an excellent report outlining a strategic plan for engineering education in the university.

Oh, I might add that, it would've been I guess 1983 when David Gardner became president, I was chairman of this UC deans' group. The chairman of the advisory committee was a very well-known San Diegan, Irwin Jacobs is his name. He was the founder of the company that became Qualcom. After President Gardner had been in the

position for some period, Irwin and I made a visit to President Gardner to brief him on the President's Council on Engineering Education, or on Engineering, I guess it was called, and the UC deans' group. He listened to us very carefully, and we went on our way, and surprisingly enough [laughs] not too long afterwards, that council was disbanded by President Gardner [laughter], as were I think all other advisory groups of that type that might have been advising the president. I never talked to David directly about this, but my sense was that he was trying to pull the president's office away from academic issues like that that he felt properly belonged on the campuses. Although I might add I was pleased that when President Atkinson became president he restored that advisory council once again, because I think it's a very valuable thing for a professional field like engineering to have a perspective created across the campuses and not just a single campus.

At any rate I was chairman of that council. I remember well the first meeting that I attended as a new dean, this would've been some time in 1981--the council met in the new Bechtel Center, which I was justifiably proud of as a dean at Berkeley. I remember I knew a few people on the council, on this advisory group. In particular, Dick Folsom who had been a professor at Berkeley, had gone on to the University of Michigan, and then later became president of Rensselaer, was on that committee. At the time he must've been retired--he had left Berkeley by then and was in some other capacity.

But anyway, the person that I didn't know that I soon became acquainted with was Barney Oliver, who was a vice president of Hewlett Packard. I got to know Barney much better later on in life while I was at Santa Cruz. His wife was very interested in the theater, and Barney made a major gift in memory of his wife to the Santa Cruz campus. But at any rate, Barney was a very interesting person. He sat at meetings giving the appearance that he was sound asleep. But it was only a method that he used to put people off, I think, because he was listening acutely and would come up every now and then with a very penetrating question. I still remember the first thing he ever addressed to me was the following question. He said, "Dean, what is the language of instruction in the college of engineering at Berkeley?" [laughter] With the implication that we did a very poor job in the use of the English language in our teaching force, and also the ability of our students to write proper English. That was my introduction to Barney Oliver.

Well, that was an interesting group and it was an opportunity to meet other deans in the system and to the extent possible, to coordinate our plans. The one thing we did accomplish, of course, at one point was to agree on how we would deal with computer science when the special salary scale for engineering and management was introduced. We certainly supported the idea that whether or not computer scientists were in or out of the College of Engineering, they ought to be included in the special salary category.

LaBerge: A note about Barney's comment. I think we've spoken about this, but in case we haven't, didn't you do something to help engineers write better? Didn't you introduce a course or do something--?

Pister: It wasn't a course that I introduced, but I certainly applauded it and supported it, and in fact I was on the master's thesis committee of a student who did her master's research work on the issue of writing for engineers. She did an interview of, I think, 1,000 of our engineering alumni and examined the needs, the challenges that engineers faced in pursuit of their careers. She found not surprisingly that the overwhelming majority of

engineers felt that they needed a lot of attention to developing their writing skills because much of their professional work involved conveying information to people, either orally or in writing. We had a very popular course in the College of Engineering that was essentially technical writing taught by specialists in technical writing. So no, that was a very important step that was taken before I became dean. I simply encouraged it and resourced it because it ultimately became a required course in some of the curricula in engineering--not in every department, but in a number of departments.

Committee Memberships in Capacity as Dean

Pister: As dean of engineering, I became an automatic member of lots of things on the campus, administrative committees for the chancellor--some were more or less moribund activities, but some were not. You never knew when something was going to come to life. I was a member of two things, one called the Physical Sciences Council and the other Earth Sciences Council. These were aggregations of deans in these areas across the campus, that were designed to try to foster some kind of collaboration across schools and colleges. Also, the chancellor had a group called the Council of Deans where all of the deans large and small, tall and short, would meet typically not more than once and sometimes twice a year, and I felt that those meetings were utterly worthless. The chancellor and his second-in-command, the vice chancellor at Berkeley, would basically spend most of the time telling us about things, and there was virtually no interaction and no chance to effect policy.

In fact, this might be an appropriate time to say that the whole time I was dean, I hadn't the faintest idea what the campus budget was like, or who got what or anything like that, something that I reacted to with such, shall we say, hostility, that when I went to Santa Cruz, I turned the whole thing around and made our campus budget absolutely open to everyone on the campus, to students, staff, and faculty, townspeople. Anybody could go to the library and look at the way our budget was disposed. But Berkeley was a very different place at least in those days, and--I don't blame this on the administration. It was the tradition at Berkeley, and I don't know what it's like today.

Also during this period in the eighties, I was appointed to the Faculty Advisory Committee for the Lawrence Hall of Science and ended up at one point as the chair of that committee and also was appointed to a building committee in the Lawrence Hall of Science. Perhaps I've mentioned this before, but the real opportunity there was to meet and to work with Glenn Seaborg and the director Marjorie Gard ner.

I was also as--by virtue of being dean--a member of the board of trustees of the UC Berkeley Foundation. That was a very interesting and ultimately instructive experience because I became much more informed about the central campus' fundraising activities or development activities, since I had been focussed exclusively on engineering and found the relationship with the campus efforts in this area to be very troublesome most of the time. In fact, the deans at that time of the three major fundraising groups, engineering, law--Sandy Kadish was the dean of the law school at the time--and business, Budd Cheit was the dean--the three of us met fairly regularly over at University House in the late afternoon each week with the chancellor trying to forge some guidelines for the

organization and development of fundraising on the campus. As odd as it seems now, in the early 1980s Berkeley was struggling to learn something about how fundraising on a campus should be conducted. There was just no tradition of any substance, even though there had been a lot of private gifts to Berkeley over the years. In fact as I recall in the 1980s, a third of the buildings at Berkeley were a consequence of private gifts even before we really got into the business. Of course, Mrs. Hearst was one of the major benefactresses.

Keeping the Promise Campaign

Pister: But it was a good experience to get involved with the trustees because this led to the major effort that the campus undertook in the mid 1980s to initiate the capital campaign for Berkeley called the Keeping the Promise campaign. I was, of course, a member of the executive committee of that capital campaign, and in that capacity not only had input to the direction of the campaign as a whole, but had a particular responsibility, of course, for engineering's part of that campaign. I don't recall, I think I remember talking about the difficulty in getting the computer science building into the capital campaign?

LaBerge: Yes.

Pister: I think I spoke of that already, that it was not on the campus's priority list even though the straw poll that was taken before the campaign, which is always done to get some sense of public, of the potential donors' reaction to the priorities, showed the computer science building to have a very high priority. The campus had chosen, I should say the chancellor had chosen not to include it, but that turned around finally, and so we were back in the campaign. So I mention that because, of course, it was very helpful to me when I later went on to Santa Cruz, to have had the experience working with a foundation and its board.

LaBerge: I guess it's a little off the subject, but when you went to Santa Cruz, they didn't have the long tradition of fundraising--.

Pister: They had a foundation board, but the campus was a century younger than Berkeley, and so the development of a donor base was at a much earlier stage than at Berkeley, of course. That's a whole different set of problems, which I think I talked about in my Santa Cruz--

LaBerge: In your oral history.

Pister: --oral history, because it was a major issue for me. Anyway, moving on to look at some of the other responsibilities, I also was appointed in 1987 to the board of directors of the statewide MESA program. I had been, oh, I guess I was co-principal investigator of the project with Marjorie Gardner who was the director of the Lawrence Hall of Science. This rekindled my interest in MESA, even though of course as dean I had a MESA program at Berkeley. This gave me a better sense of the statewide issues for MESA. At that time we were struggling with how best to administer it because this was a program now for both the UC and the CSU systems, although UC had the budget control of the

program. So that was an opportunity to be reacquainted with a program that I knew from the beginning because it was founded by my neighbor Bill Somerton who was professor of petroleum engineering at Berkeley.

The other things I would like to mention, and I'll connect later on with this, I was a member of the steering committee for an All University Conference on Faculty and Graduate Student Affirmative Action, under David Gardner. I'll come back to talk about that when I deal with the whole issue of affirmative action in the university and my involvement.

Hearst Mining Building; Faculty Housing

Pister: The next thing I'd like to mention is in connection with buildings at Berkeley, particularly given the present interest in and state of the progress in rehabilitating the Hearst Mining Building. I note that in 1989 I was made a member of the Hearst Mining Building study committee. That was the first step back in '89 to get the Hearst Mining Project into the Berkeley capital plan, and it just shows how long it takes to do things like that. First, it has to become part of the campus capital improvement plan, and then of course, it has to be scoped out, you have to decide what has to be done, where the people are going to go, that so-called decanting process, and then not the least, you have to find a way to fund the project. Typically in that period, it was a question of finding some private support as well as hoping to get a few state dollars for the rehabilitation. So what started in 1989 is still in the process of being completed, and I'm told now that some time this summer, in late summer, the Hearst Mining Project is hoped to be finished.[1]

I also note that I was a member of the Chancellor's Committee on Faculty Housing. So as early as the 1980s there was a concern about faculty housing. I think that the particular thing that we talked about there was the acquisition of the property that was formerly Presentation High School in Berkeley that was converted into townhouses. That was a major focus.

LaBerge: Anything about loans or--

Pister: You know, in the 1980s there were two things. There was a faculty housing mortgage program, a kind of a very nominal effort to provide loans for mortgages to faculty at better than commercial market rates. But as I remember it, and I was recruiting a lot in that period, the campus's allocation was just way too small, so you had to fight for any one that you needed. It's much different today than it was in the 1980s, I might add, although the housing crisis has not abated. At least it's much easier to get a favorable loan today than it was at that period of time. The other thing, just in passing, that I remember is that there was--if you brought in a person from out of the state, there was a program of some sort of a differential salary that you could, up to a certain maximum number of dollars, you could supplement a person's regular salary with some kind of a differential

1. The dedication ceremony took place on September 22, 2002.

pay over a certain number of years. That was designed to address the housing issue. I think I used that in a couple of cases in engineering over the years.

A couple of other interesting committees that I served on, one was the opportunity to meet the new dean of Letters and Science, Carol Christ, when she was first appointed. She constituted an advisory group called the College of Letters and Science Committee for Budget System Review. Anyone who has been at Berkeley for any number of years will recognize the name Ed Feder. Ed was an assistant dean of the College of Letters and Science, and Ed basically controlled the budget of the College of Letters and Science--

LaBerge: [laughs] For years and years.

Pister: For years and years and years. People that wanted anything from the dean of Letters and Science in the way of budget had to go to Ed's office to deal with it. Anyway, so Ed was phasing out I believe at that time, and Carol, a professor of English, came in as the new dean, and she wanted the benefit of some other people who had had some experience already in the budget process. She had an outside management group come in to kind of facilitate the meeting. But the only reason I mention this was that it was my opportunity to get to know Carol. It was the beginning of a friendship that continues today with a person that I respect greatly for her accomplishments here at Berkeley. Sorry to lose her to Smith College, in fact.

SACI and the Naming of Buildings Subcommittee

Pister: The next one I'd like to mention was an interesting one that, looking back at this now, it's amusing because of events. Sometimes events overtake--what's the right expression? Events overtake the creation of policy or something like that. I don't know what. This was a subcommittee of a very powerful committee here called the SACI committee. I can't even remember what SACI is anymore. But the importance of SACI is that it made recommendations to the chancellor on the allocation of space. Since I've mentioned SACI, let me put an editorial statement in about SACI. When I was dean, our computer science people were growing by leaps and bounds in Evans Hall, and they had, I think, less than 60 percent of their earned space. On the other hand, the Department of Mathematics, also an occupant of Evans Hall, had something like 121 percent of its earned space.

LaBerge: Can you tell me what earned space means?

Pister: Yes, there's a formula in the university and that determines, on the basis of workload and size of faculty, and kinds of space that's required, laboratories or classrooms and so on, that on a basis of a formula, calculates how many square feet of space your academic units should have. It was called the earned space, in other words. You can see that, how that would work, and it would be essentially a kind of a norm that you could use to determine whether or not people were overspaced or underspaced. Well, we were dramatically underspaced. We had people living in closets practically, whereas the mathematics people had almost a fifth more than what the formula said they should have. I brought this to the attention of the chancellor as forcefully as I could, and it actually

[laughs] got me nowhere. Whether it was SACI or whether it was the chancellor--and all I could ever learn from this was that somehow when the building was built, the math department got some money from the National Science Foundation for the building. And there was some kind of a deal that was cut by the chancellor at the time, Al Bowker, that gave the mathematicians some sort of a corner on the space in that building. And no chancellor after that had the courage or the will to abrogate whatever agreement was made by Bowker. I've never talked to Al about that, I should some day and find out. Because in a way it was good, because it put pressure on me to get a new building for computer science, which is what happened. But it was certainly frustrating at the time.

LaBerge: I think space at the university is sort of like parking, because we're having the same--.

Pister: People fight more violently over space than over almost anything, even salary or anything else. Space is a very, very valuable commodity. But there's a second thing about the SACI that--I was appointed to a subcommittee of SACI called the Naming of Buildings subcommittee. Now, the reason I was appointed to this subcommittee when I was dean was that the subcommittee prior to my appointment to it was comprised, I think, almost entirely of emeritus faculty. It was chaired by a colleague from physics Carl Helmholz. The Naming of Buildings subcommittee as the name suggests made recommendations to the chancellor as to the advisability and the appropriateness of attaching names not only to buildings but to anything associated with a building, like a plaza or a bench or a room or anything like that. Fortunately, in subsequent years the policy has been liberalized substantially so that--it used to be that almost everything of any moment had to go to the regents for acceptance.

LaBerge: From every campus.

Pister: From every campus, but that backed off a bit in the 1980s and '90s, and now a chancellor has a great deal more flexibility in the naming of buildings. But be that as it may, suppose the chancellor has that authority to name objects or buildings or whatever, there has to be consultation with the senate. So this was an administrative committee--it wasn't the senate--a committee that was comprised. Well, the issue that brought this to a head was the business school's fundraising for what is now the Haas Business School.

[39B]

Pister: The Bank of America had made a gift, and it was the desire of the dean in the business school to name a plaza the Bank of America Plaza. Well, that brought down the flag on the business school because the subcommittee of SACI said, absolutely that was inappropriate to name a facility after a corporation.

LaBerge: And who was the dean, right, was it Richard Holton?

Pister: No, that would've been Ray Miles.

LaBerge: Okay, Ray Miles, okay.

Pister: He followed Budd Cheit. So the chancellor, I think, felt that there needed to be some balance placed on that committee, so he put a fire and brimstone dean who would have no reservations about naming a plaza after the Bank of America. I didn't hold the position

that all corporations were evil and should have no presence on the campus, since I had supported and nourished and encouraged our industrial liaison program and the acquisition of corporate gifts and was, in fact, busy raising money for a computer science building at that time. So I think ultimately the protocols of that committee were changed after I left the committee, and I don't think Berkeley has had the same kind of problem in the naming--.

LaBerge: Meaning that it's now not just emeriti or--

Pister: Well, should I say, the culture of the committee has changed enough? I don't know if there's anything written down about this, and at that time they had a very, very narrow view on what could be named and what couldn't. In fact, I remember one of the other members of the committee was a philosopher, Joe Tussman, and he had the view that this was not a good thing to name--

LaBerge: Because there's not a plaza, but inside that building there's a forum called the Bank of America Forum.

Pister: Yes, okay, well, they found a different way to do it.

LaBerge: [laughter]

Pister: This is particularly amusing because, just to complete this issue and to make the point, subsequently some time in the 1990s, early nineties, I remember at a regents' meeting when the Irvine campus brought a proposal for an endowed chair. And that's all been changed, too. Endowed chairs don't have to go to the board anymore. A proposal for the approval of the acceptance of a gift to create an endowed chair at Irvine came, and the name of the chair was the Taco Bell Chair at Irvine. [laughter] I can imagine if that had been brought to Berkeley, it would have been resoundingly smashed. The regents discussed it a bit, but someone mentioned that there was something like the--what's the name of the drugstore, Walgreen's--there was a Walgreen's tennis court at UCLA or something like that, and anyway it passed.

LaBerge: It did pass?

Pister: Yes.

LaBerge: What department is it in?

Pister: I don't remember what department it went into. But it's--

LaBerge: Food and Nutrition. [laughter]

Pister: No. That would be an awkward place to put a Taco Bell chair, in Food and Nutrition. [interruption] So, I think that gives a pretty good sample of administrative committees, although I am sure there are many others that I have forgotten. I think we'll leave it there.

More on Academic Council Activities

LaBerge: You know when you might, if a crucial one comes up, you remember an anecdote later, you can add it.

Pister: Well, Germaine, what I'd like to do is go back and pick up some things that occurred when I was chairman of the Academic Council.

LaBerge: Perfect.

Pister: I ran across some notes that I seem to have overlooked that contain some things that I'd like to record. Let me start by talking about the only formal presentation that I made to the Board of Regents during the time I was chairman of the council. I ran across a copy of the presentation, that's why. I didn't have that opportunity or responsibility until much later again in the 1990s, as chancellor and then as vice president to make scheduled performances before the board. [laughter] While I was chancellor there were a number of unscheduled performances. But anyway, I think the genesis of this was that the chairman of the regents' Committee on Educational Policy was Vilma Martinez, a regent that I got to know and became very, very fond of, a wonderful person who was the child of immigrant workers in Texas who became a very well-educated and very sensible and a wonderful regent, having endured innumerable insults at the hands of some of her male colleagues on the board, I would have to add.

Anyway, as chairman of the educational policy of the board, she wanted to learn more about educational policy in the university, an unusual request for a regent and one that did cause great anxiety in the president's office. [laughter] This was 1980. It was simply a precursor of what happened in the nineties and after the turn of the century when the regents have become a great deal more interested in how things go on in the university and don't take anybody's word for it.

Well, I was asked to give a session, present an item called "Making Educational Policy in the University of California." I went back and reviewed it, and I can understand now, having read over what I said and the exquisite detail and care that I put into the presentation, the intricacies of the organization and the process. I can understand why a number of regents got up in the middle of my presentation and walked out.

LaBerge: [laughter] They were just taking a break, or were they protesting?

Pister: No, I think they were just simply bored out of their skins to listen to this faculty member. [laughter] It's a perfect example of faculty members misjudging the audience. The document speaks for itself. I just couldn't believe that I would have ever have done something like that. But I did.

LaBerge: That might be the kind of thing to deposit, papers to deposit possibly in the Bancroft.

Pister: [laughs] I don't know. It might be. We can judge that later on. There are several other things, as well, that I'd like to mention. I went back and found some summaries of agenda items and things that were done. The first thing I ran across, and this will, I think, ring in your ear, Germaine, was a study on behalf of Archie Kleingartner on phased retirement.

Phased Retirement, Collective Bargaining, Pregnancy Leave, Shared Governance

LaBerge: Oh, I'm sure I know the author. [laughter]

Pister: I think you probably do. Yes, I think Morley Walker and Frank Giunta worked on phased retirement for Archie. That program was implemented. I don't remember exactly what happened. We agreed on a phased retirement process. I think it actually was implemented for a brief period of time--

LaBerge: Until VERIP maybe.

Pister: Way back when, yes. I've already mentioned the infamous committee on the social impact of research. I won't return to that because that was prominently featured in my notes. The next one that I remember dealing with was a substantial one that continues to be an issue and was a major issue for President Atkinson a couple of years ago, and that is collective bargaining, the so-called HEERA Act. During my term as chair, the opportunity for faculty to vote on whether or not they wished to be represented by a collective bargaining agency took place. And so my council's job, working with the president's office, was to do all the preliminary work to be sure people understood the issues on both sides and to put in place the machinery for the election to take place.

LaBerge: When you say make sure people knew the issues, do you mean the president's office or do you mean the faculty?

Pister: The faculty. The president's office and the senate had to be sure that before the election took place both sides, the pros and cons, were explained. And as the record shows, of course, when the faculty voted, this was done on a campus by campus basis only on issues that were campus-specific. There was no, wisely, opportunity to have a university-wide collective bargaining group, only by the campus--and certainly in my view a good result. But anyway, among the nine campuses, Santa Cruz was the only campus that voted to have a faculty collective bargaining agency.

I found that one of the other issues that we discussed then and made a recommendation on was a policy called pregnancy leave policy. I think that was the first instance where there was any interest in what I guess now has a different name. I don't think it's even called maternity leave. There's a--

LaBerge: It's a more--

Pister: It's more inclusive because I think--

LaBerge: Parental leave or something.

Pister: I think male members of the faculty are allowed to take this leave as well as female members. But that had its genesis at least in the recent history of the university, and I'm sure there was no earlier history of this issue than 1980, during my term.

LaBerge: But when you're council chairman, how does the process work? Do you go back to the council, and then they spread the word to the different campuses, or do you go around to each campus, or--?

Pister: These issues typically, a certain number are generated in the senate say by the council or by one of the campus divisions of the senate. But most of the time the council, speaking for the Academic Assembly, which is a representative body of the senate statewide, reacts to issues that are submitted for consideration by the president's office. That process can be relatively informal. It can be done at the level of the council with input from the statewide committees and the divisional representatives, or it can be done formally by essentially referring the matter through the council to the individual divisions through the chairs of the divisions. Both methods are used regularly. It depends in a sense on two things, on, shall we say, the gravity of the issue for faculty welfare or the welfare of the university, and alas, the other one is time. The time scale in which the decision has to be made.

There's a very formal procedure that has been used relatively infrequently. The Academic Senate can memorialize a resolution to the regents. This is the only way, according to the bylaws of the regents, that the faculty as a body can speak with one voice to the Board of Regents, through a memorial resolution. That has to be done at each division, each campus division, and there's an elaborate process that you have to go through. I think it requires a mail ballot actually. I've forgotten the exact details. That's been used, I don't know, in my own lifetime here, I don't think more than, certainly less than a dozen times and probably less than that.

LaBerge: What would be an example?

Pister: Whew. I think possibly one of the times when the contract to manage the laboratories, the defense laboratories came up, I think there might have been a memorial resolution.

Policy Governing Outside Activities of Faculty

LaBerge: Any time during your tenure?

Pister: I don't remember one during the time I was chairman, certainly, no. There was another very interesting activity that we went through at the president's request. We prepared a draft of a policy governing outside professional activities of faculty. In fact, that policy was created under Saxon's presidency, and it was in force until President Atkinson's term when the policy was revised, and--or it could have been Jack Peltason's, actually, when the policy was revised--and then was supplemented by a conflict of commitment policy.

Outside professional activities, that policy was directed toward, what you might call, the full-time employment of the faculty member. What did it mean to be a full-time employee? To what extent did one have the opportunity and indeed the possibility of receiving compensation for work done outside the university? I guess it was during Peltason's term, that whole policy was made much more explicit. It used to be governed by Regulation Four, I think of the Board of Regents--I'm not entirely sure if that's the

right number anymore--but it was very vaguely stated, which has its great advantages, I might add. But when the policy was revised, it became much closer to policy used by many institutions, in that it prescribed a maximum number of days per year that a faculty member could receive compensation for outside activities. And then that was found not to be sufficient. There had to be an additional policy called conflict of commitment, but that happened much later, so I won't address that.

The next thing that I noticed was something that at the time--I can't remember exactly what motivated it apart from the early stirrings in my consciousness of the problems of affirmative action and admissions into the university. I note, and I hope I'm not rewriting history to suit my own sense of what happened, but--in January of 1980 we invited the chairman of BOARs, the Board of Admissions and Relations to the Schools to attend the council meeting as a non-voting member. I remember subsequently we changed the by laws of the senate to give the chairman of BOARS a regular seat on the Academic Council.

LaBerge: Was that person a faculty member?

Pister: Yes. Oh yes. At the time BOARS had not been a terribly active statewide committee even though it had a serious responsibility to recommend policy for the senate with respect to freshman admissions. Well, that was twenty-some years ago. Subsequent events, of course, particularly after SP-1, and of course after Proposition 209, show in hindsight that it was a good idea [chuckles] to have BOARS at the table because BOARS played a major role in working with President Atkinson in reshaping admissions policy during the last few years.

LaBerge: And we'll talk about that later when we get to--

Pister: Yes. But I just note that it was more or less by accident that I was chair when that was done. The next thing I'd like to mention is that, alas, during my term as chair of the council, the policy and its implementation concerning the review of chancellors was initiated. [laughter]

Review of Chancellors

LaBerge: [laughs] Several things just must come back to haunt you.

Pister: They come back, yes. In going back, I didn't review any of the documents. I couldn't find them anyway, but it was my responsibility to work with the president's office on developing a protocol for the quinquennial review of chancellors and not only to recommend a policy and protocol for doing that, but actually to initiate the first such review. I remember how I grabbed that with all my energy and interest [laughter] since I was then 100 percent faculty. I had not yet become an administrative officer in the university. To the best of my recollection, the first person we reviewed, the person for whom I was responsible for getting a review started, was Chuck Young at UCLA. We never talked about it subsequently. [laughs] I don't remember how it came out. I'd have to say also that even though I started this and the boomerang could have come back to hit

me, I left Santa Cruz in my fifth year. So I didn't get reviewed while I was at Santa Cruz. But I did have to sit one afternoon with a fellow from the president's office. I guess it would've been in Jack Peltason's term. He had someone reviewing the whole policy on review of chancellors, and this person brought down this elaborate new scheme for reviewing chancellors. I remember sitting with him and viewing the whole thing with him with a great deal of skepticism and disinterest at the time. [laughter] So it's amusing the way things like that come back.

Just a couple of things more, I found two letters that I wrote to David Saxon at the end of my term, one at the beginning of the summer, one at the end of the summer of 1980. There are a couple of points that I think are interesting. In the letter of June 1980, there's some kind of indirect language about the upcoming election to determine whether or not the faculty would want a collective bargaining agent. I mentioned the problem of shared governance in the presence of a bargaining agent, that it would really complicate things.

LaBerge: So in other words, you were not for collective bargaining.

Pister: I certainly was not, but I had to be very careful. In fact, I evidently overstepped, in the eyes of at least one faculty member, because I found a copy of a letter from a professor at Riverside to me really dumping on me for saying what he thought was unfavorable to collective bargaining, and I had no--

LaBerge: Whereas you were supposed to be neutral.

Pister: Supposed to be neutral, yes.

LaBerge: Did you work with Law Professor David Feller at all in that or--?

Pister: Yes. Dave Feller was certainly part of that whole scene in those days, yes. Then Archie Kleingartner had someone in his office working full-time on this. Tom Mannix, a special consultant that had labor experience. I remember attending a lot of meetings at that time worrying about the mechanics of this whole thing. But the thing that I want to focus on here now is that I wrote [laughter], "I can't overemphasize the need to provide sufficient lead time for meaningful faculty consultation." I said, "Except for the chairman of the assembly of the Academic Senate," that was I, "no other faculty member has participation in shared governance as his or her primary duty." And, "Effective consultation in the university has to take this into account."

It's interesting as I look back and then look at the subsequent history of the relationship of the Academic Council to the president, how it's evolved. During my tenure with David Saxon, the chairman and the vice chairman of the council met with the president for one hour a month, in the week of the regents' meeting, prior to the council meeting. The president and usually two or three of his vice presidents would spend an hour or two at the Academic Council meeting to brief us on things. Certainly Archie was usually there; Don Swain was always there, the president and sometimes Tom Jenkins on budget issues. But, as council chair, my office was over in Stephens Hall.

Academic Council Now in the Office of the President

LaBerge: If you had not been on the Berkeley campus, would it still have been there, or would it--?

Pister: No, it would have been on the campus of the chair. I had a part-time secretary, I think, at the time, and had a lot of support from the Berkeley division secretary, but I had a personal secretary. We had a budget. Angus Taylor was still there, I believe, at that time, and he gave us a certain budget for the senate office. Well, the interesting thing that has happened, and I think this started while David Gardner was still president, an office was created for the chair of the senate in the Kaiser building. The office was provided, not only for the chair, but for a staff member, a regular permanent staff member to work with the chair.

The second thing that happened--and I think this was continued by President Peltason and President Atkinson--there's an office now, there's a suite of offices at 1111 Franklin for the Academic Senate. So that's one step, bringing the council chair into the president's office. But I think perhaps even a more significant thing that happened after David Gardner was that Jack Peltason, and Dick Atkinson followed the example, made the Academic Council chair a member of his cabinet. That is all the vice presidents in the president's office, the Secretary of the Regents, and general counsel, who is also a vice president now. Who else--?

LaBerge: Treasurer?

Pister: The treasurer, and let's see the, yes, the other person is the, I don't know the correct title, the director of public information. So that's the president's cabinet, and the council chair is part of it. That group, under both Peltason and Atkinson met weekly.

[40A]

LaBerge: --more about the Academic Council chair being in the president's office.

Pister: Yes. I mention this because I think it shows a very interesting evolution in shared governance, how it evolved from the time that I first encountered it with David Saxon over twenty years ago, to my final experience in 1996, when I sat there and saw the dramatic change in the way the president dealt with the Academic Council chair.

LaBerge: Do you think it's for the good?

Pister: You know, I've had mixed feelings over that, and I think perhaps it's in one sense a better way than to maintain a more distant position, but it also creates some problems.

LaBerge: I mean, would that relate in a way to the issue that the council chair is a non-voting member of the regents, I mean, that it keeps your independence?

Pister: Yes, it does. Yes. But, I don't know. It's just, the president's cabinet is essentially the president's office--

LaBerge: Exactly.

Pister: --and the council chair is not part of the president's office, so you can ask, Does this make sense? Certainly when I was chancellor, I had a cabinet meeting, but I didn't invite people that weren't part of my cabinet. I wouldn't have imagined bringing in any faculty of the Academic Senate at Santa Cruz. I had another venue for doing that. I met with the chair individually and then in other groups, but not with my own cabinet. But that's a question of style, and--

LaBerge: And I guess no one has protested.

Pister: Oh, no, I think people in general think it's fine.

LaBerge: What about the vice chair? Does the vice chair have an office too?

Pister: The vice chair has an office there, too. But the vice chair spends less time there than the chairman. The chairman really moves up and stays here during the week. The current chairman for example is from UCLA, and during my term in the president's office, the chair was from Davis and UCLA, and they just moved here. I think there may be an apartment that the president's office has for the council chair.

Growing Commitment to Affirmative Action

Pister: One other thing that will bring the curtain down on my time as council chair, and this really I think ties into the next thing I want to talk about or a topic that I will talk about later, the question of diversity. I was trying to get a sense of where my consciousness for the issues of access for educationally disadvantaged students, which is another term for students that are ethnic minorities in California, where this awareness really began. It's as early as 1970 or '71 when my neighbor and engineering colleague Bill Somerton, whose name I mentioned, started talking about the need to bring in minority students into petroleum engineering. He got money from some oil companies to start what became ultimately the MESA program. We used to commute together from Lafayette and he talked a lot about this, and indeed in the beginning years of MESA, I took part in a few activities of MESA. But at the time, even though I was sympathetic to what he was doing, it certainly wasn't a mainstream part of my life.

LaBerge: On the other hand, I read the piece you wrote I think for the *Catholic Voice* in 1969 on the troubles on campus, and in it you talk about disadvantaged youth, poverty. So it was somewhere--

Pister: Yes, it's interesting. So it was there, there was a latent concern about social justice, I think. But I hadn't connected that as directly with the problem of access to the university that evolved later in my life. That's what I'm trying to trace, because I have still a very strong recollection of a conversation that I had once with Don Swain when he was academic vice president down in University Hall, when he was talking about, "Well, we're going to have to do a better job in admitting minority students to the University of California." I know my immediate reaction was, "Yes, but the quality will go down. We can't allow that. As a faculty member I can't allow that to happen, the quality of the students to go down." A very narrow view of affirmative action at that time.

But somewhere, you've reminded me that there was something latent [laughs] in my consciousness about this. Something changed because even before I became dean where it really began to mature and develop into action, something must have happened in the period between the time I talked to Don Swain [laughs] and when I wrote this letter to David Saxon and to my successor, chairman Ben Aaron, who followed me as council chair. I think it might be interesting to read it. This was written to David Saxon and Ben Aaron: "I hope you will allow me one last plea as outgoing chairman. I'm forwarding a copy of the remarks that I presented at the recent outreach services conference at Irvine, not because I believe that profound truths are to be found there, but I am compelled to add my own feeling of urgency and sense of need for greater commitment to student affirmative action. My experience this year tells me that we must do more." Then I move into something that became a very strong part of my life and experience later on, "The senate together with the administration must make a formal, but forceful statement of purpose and intention to deal with the problem of underpreparation of qualified students. This has to be given the status of being part of the university's mission." Then I connected that to the problem of instructions to appointment and promotions committees that we addressed in the task force that I chaired. I end up by saying, "I'm convinced that we can work effectively to implement affirmative action without disturbing the quality of the University of California."

So I think probably one of the things that was really responsible for that is a report that I had done, as council chair, by the person that was the editor of *Notice,* which was the Academic Senate newsletter, in the person of Vivian Auslander. Vivian was my editor, and she was a brilliant writer and very action-oriented person. I asked her in the fall of 1979 to do some research on faculty involvement in student affirmative action and to prepare a report, and she did that. I sent this report as council chair to the Office of the President and to members of the council in April of 1980. When I went back and read that report again, I could see that it had obviously an impact on my thinking, and it kind of brought to the surface things that evidently I had felt, but not expressed. Because later on in September of that year, and I refer to it in the letter of the president, I gave a talk at the fourth annual fall outreach services conference at Irvine on September 3, 1980. I had just finished on August 31, my term as council chair, and the talk was entitled "Student Affirmative Action: A Faculty Member's Perspective of Past Failures, Current Problems and Opportunities for Future Success." So I really got going, I think at that time, based on what I had learned from Vivian's report and my general sense that the university needed to do a better job in this area.

LaBerge: Who would have convened that conference at Irvine?

Pister: The president's office would have convened the conference.

LaBerge: So somebody in the president's office, maybe it was Don Swain had that on their mind.

Pister: It probably was. Yes. Don would've seen that and seen the necessity of it. And I'm sure David Saxon gave him plenty of support for that. So I think if you're okay with this, what I'd like to do is just kind of move into the whole area of diversity.

LaBerge: Wonderful.

Pister: I've left the council and--

LaBerge: We've talked about the deanship already.

Pister: Yes, I've talked about, during the time I was dean, the programs that I started. I believe that's all a matter of record. So I'm not going to go back over that material again, but move ahead to some very important events of the early 1990s. Then since the period from '91 to '96 is in my Santa Cruz history, I'll skip that and then jump to 1996, to try to provide the full spectrum of my experience and interests in affirmative action in the university.

In the last year of my deanship at Berkeley, I was made a member of the steering committee for what was called, an All University conference on graduate student and faculty affirmative action. And indeed, I prepared one of the white papers that was part of the material sent out to attendees of the conference. As you know these All University conferences were something started by President Sproul. They were annual affairs during his presidency, a limited number of faculty members from each campus was invited, and administrative officers were there. I attended one of them at Santa Cruz as a faculty member, and then the second one when I was dean. It was held down in San Diego, as I recall.

At any rate, it was, I think, a very productive conference. I remember Regent, or former Regent by that time, Vilma Martinez gave a very good talk. I still remember a line out of her talk that hit me that I've never forgotten. It was something like, "If the university doesn't take the necessary steps to provide access to the growing minority population in California, there won't be a fancy University of California." That stuck with me, and over and over again in different ways I've tried, as late as yesterday [laughter] in a committee meeting at Berkeley, tried to make that point to people: the university doesn't exist independently of the society that supports it. One must take seriously the statement that was first articulated by Daniel Coit Gilman when he said, "This new University of California is of the people and for the people of California." You have to ask who are the people, and then decide how you're going to deal with that issue.

Well, I prepared this white paper, and I was I think quite outspoken at the conference about the importance of getting the faculty involved more intimately in affirmative action. I remember on the last day of the conference standing up and saying, imagine what would happen if the faculty all decided to write, I don't know, so many fewer papers in a certain period of time, and took the time away from writing papers to devote to helping students get qualified to enter the University of California. Of course, that didn't meet with a great deal of approval there.

Also, in the same period of time, in that spring of 1990, I had a paper in our annual magazine called *Forefront*, published by the College of Engineering, that dealt with the whole issue of the workforce. It was an article entitled, "Fixing the Educational Pipeline." It dealt with the consequences of failing to educate all the population and its impact on just the engineering workforce in the United States. The pipeline for engineering begins in pre-kindergarten and ends with the production of practicing engineers. That's a theme that I've used over and over again.

Well, what happened because of my outspokenness at the All University conference, I think, was I was rewarded--as some say, "No good deed goes unpunished." [laughter] I

was rewarded with the chairmanship of the taskforce on the faculty reward system, and I've already talked about that in some detail.

LaBerge: It's almost three-thirty.

Pister: Oh I'm sorry. Let's stop there.

LaBerge: Stop there and continue with the diversity. Could I read your paper before the next--or is that your only copy?

Pister: You can take it.

Changes in the Research University Post World War II

[Interview 21: May 16, 2002] ## [41A]

LaBerge: Well, today we thought we would start with the changes on campus after World War Two and go on from there with other changes through the years.

Pister: Okay, when I speak of changes, of course, I'm not going to be talking so much about the physical changes that have taken place on the campus, although they have been substantial. Perhaps at some point one could remark about that, but it is primarily my sense of the culture of the campus from different perspectives. Here I guess I should go back to my first impressions in 1942, in October, that one year that I was here, to use a term prevalent at that time, as a civilian, as opposed to being in the armed forces. As a young freshman, my sense of Berkeley and the faculty particularly was that it was a faculty--and let me draw on my contact basically from my department at that time--a faculty very much committed to teaching. There was a modest amount of research going on at the time. Some of it was related to the war effort already, but it was primarily a department that was perhaps more focused on undergraduate education than graduate education and research.

It would be hard for me to generalize that to the whole campus, although I expect it would be reasonably true for the entire Berkeley campus. The Department of Chemistry and the Department of Physics perhaps had already moved ahead of other units on campus, the physical sciences generally, in picking up more of a research characteristic than other departments on the campus.

Using that as a starting point for when I returned as a graduate student in 1946 and then joined the faculty in '47 and again in 1952, I think there had been relatively little change in what I would call the climate, the academic climate, of the campus in that period of time. On the other hand, it was, I would say, just a temporary lull before--or plateau would be a better word--before there began what I would characterize as a continuous evolution of the campus to become appropriately characterized by the term "research university." As I remember, I believe Clark Kerr wrote of this, the term "research university," at least as it applied to California, was a consequence of the name changes, the state colleges being renamed as the California State University. The University of

California had to draw a distinction in the master plan. Along with other like institutions across the country, it took on the term, which has characterized it in the succeeding years, "research university."

Government Funding

Pister: What was happening, of course, was that the report of Vannevar Bush, "Science, the Endless Frontier," had finally been accepted and made a matter of national policy. It took, as I remember, four or five years for the impact of that report to take any root in the federal government in Washington. But it led to the creation of the National Science Foundation. It also led to the incorporation of support for university-based research in the mission agencies of the government, like the newly created Department of Defense at that time, in the early predecessor of the Department of Energy, the Atomic Energy Commission, and other departments. It added to these agencies' missions essentially the component of support of research and graduate education in the United States.

LaBerge: By the federal government.

Pister: By the federal government, yes. This was a very significant change from the pre-World War Two years. It was born in part by the success or I would not necessarily say the success, the contribution--successful contribution would be a good way to characterize it--of the universities to the war effort in the 1940s. So the fact that the federal government had basically taken on this as a matter of national policy, understandably changed the culture of a number of public and private universities in the United States. Particularly, it began to change the character of the land grant institutions of which UC was a member.

So what did that mean in terms of campus culture? Well, of course, this didn't happen overnight, but it meant that over a period of years that I have observed the campus and the faculty's, and I use the term again "proper work," it meant a gradual change from essentially a work day that was largely devoted to undergraduate education, to an increasing commitment to graduate education and the concomitant necessity for acquisition of research funds and the development of research programs. Just to put that in perspective, when I began to teach in Berkeley as an instructor, this would have been in 1948, I typically would teach three lecture courses and two or three laboratory courses each semester.

New Concentration on Graduate Education and Research

Pister: Thirty years later, forty years later when I was dean, that might be considered a heavy teaching load for the entire year for faculty members in engineering. And in some other fields the teaching load was even lighter, particularly in biology. The reason for that is that there was a shift from classroom teaching to classroom teaching plus supervision of graduate students, and the demands of the creation and continual nourishment of graduate

education simply demanded that faculty members devote more of their time to that particular activity.

LaBerge: Did this happen in the humanities besides the sciences?

Pister: You know, it happened less so because of the fact that the humanities have always been orphans as far as the federal government is concerned. Whether for fiscal reasons or political reasons, there has been little support for federal intervention in the humanities.

LaBerge: While this was happening, when you were in the midst of it, did you see it happening?

Pister: Well, like many things in one's life, when you're involved in a process in which there's a gradual change, it's less apparent to you than it is after you've gone through it and looked back where you've come from. Very much like aging, I might add. [laughter] You know you're growing old, but you don't realize that you're growing old until you look back at some things that you might have done when you were younger.

With respect to engineering, the transformation of the College of Engineering was perhaps even more dramatic, because of the first dean of the modern college of engineering, Charles Derleth. I think I've mentioned that Charles Derleth, who was a civil engineer, was simply opposed to the creation of graduate study in engineering. He couldn't stop it, to be sure, but he certainly didn't encourage it, particularly for civil engineering. So there was a very modest amount of graduate work in civil engineering when I first joined the faculty.

So the change in funding and emphasis certainly impacted the work of faculty, and I've already talked a bit about how that has affected the personnel process at Berkeley in an earlier discussion. A good example of this issue of the growing importance of research on the campus is an anecdote that I still remember from a College of Engineering faculty meeting some time in the 1950s, at which there was a very spirited discussion over the issue of awarding both academic credit and salary to a graduate student who was pursuing research under individual study, a 299 course. There were purists in the group who argued that a student that received academic credit for doing individual research should get that credit, but it was inappropriate to pay the student at the same time. Now, that particular philosophy was a great surprise to faculty colleagues who had come from private institutions such as Columbia University, the one I remember, where for years Columbia had been further ahead, at least in this area of engineering, and had supported graduate students and their research for years, starting at least during World War II.

I remember another consequence of this kind of separation of God and mammon [laughter], so to speak, to use an inappropriate reference. Even into the early 1960s, I remember when I had research programs that were externally funded, when my students did the research for their dissertations, they typically would do a report for the project, but they would also have to prepare a dissertation. Often it was the same document, but I insisted that there be a payment out of their own personal funds for the dissertation side of the work as opposed to the project paying for the report. So even if it were limited only to the [laughs] reproduction of the document itself, they had to pay for it. That's long since disappeared, but it shows the kind of ambiguity in that whole area, at least in the minds of some of us.

Shift in Allegiance from the Institution to the Discipline

Pister: The second thing that I'd like to talk about is what I'll call the gradual shift of faculty allegiance from institution to discipline and indeed often sub-discipline. There has been a lot written on this in recent years. In fact there have been research studies, papers written on this trend. Indeed, there was a very significant study by Ernest Boyer on the American professoriate. He had a very elaborate survey instrument sent out to a sample group of American professors to gain the data.

LaBerge: Is this the study, or is this the one you used in your faculty rewards system?

Pister: No, this is a different one. This is called a study of the American professoriate, by Ernest Boyer, when he was still with the Carnegie Foundation for Teaching. What I'm talking about is the gradual shift of focus and allegiance from a campus to a smaller part of the campus, or not only a smaller part of the campus, but to a new set of peers.

In the University of California, the Academic Senate structure delegates to the campus divisions, the divisional senates like the Berkeley division--essentially the regents delegated authority for supervision of courses and curricula. It delegates that through the statewide Academic Senate to the campus divisions, and the campus divisions in turn delegate to the campus school and college faculties, and that's really as far as the delegation of that authority and responsibility goes. What this means ideally is that matters of courses and curricula are really extra-departmental in terms of the responsibility under the regents' standing orders. So that if faculty wish to start new courses or wish to propose a change in a degree program, that may initiate in a department, but it has to be approved by the faculty of the college or school in which the department is located, and it in turn has to take that matter of courses and curricula to the divisional senate for approval.

In my early days in the 1950s certainly, this hierarchy of approvals and responsibilities was very much in the minds of faculty, and the exercise of this approval authority was carried out with what I'd call due diligence. As time went on and the whole enormous impact of the federal funding on the support of graduate education, which was enormously accelerated, I should say, in 1957 by the Russian Sputnik event--what happened is that in time faculty loyalties to the institution, the campus or the campus senate in this case, and any responsibilities such as the exercise of voting or discussion of campus issues, that began to wane. The focus was shifted to the department and indeed even in some cases to sub-units of the department, to a specialty in the department. For the obvious reason that the rising importance of research and the acquisition of research grants to support faculty members' research and support the research group of a faculty member, that whole issue was very much dependent on the approval of one's peers across the country, because every grant proposal, whether for the National Science Foundation or for some other federal agency, every proposal was sent out for peer review. It became increasingly important to be known to and respected by one's peers away from the campus rather than one's--even one's own departmental colleagues, let alone your colleagues from another college or school on the campus.

Ultimately, and what's happened in more recent times, the emergence of the Internet in the daily affairs of academics has made this shift even more dramatic. So now your

Internet buddies across the world are in many senses closer to you than perhaps your colleague in the adjoining office in your own department, who is probably in a different field from you or even in the same field, but might have different interests. I think the consequences are obvious. I've called it the abdication of citizenship effectively, on the part of faculty, for reasons that are certainly understandable if not in some cases even justifiable. The reward system shifted to support this. Nobody took roll [laughs] at the faculty meetings or senate meetings. Nobody kept count of whether or not you were serving on Academic Senate committees or even if you served. No one cared whether you did a good job or a bad job except yourself, and the chairman probably. So the whole culture was dramatically shifted.

Attitude Towards Service

Pister: Ernie Boyer's study just supported this. The evidence of that study made it absolutely clear that this is what had happened. The percentage of people who rated their institution as their primary loyalty was almost in the noise, was trivial compared to the department and one's peers. So there has been I think an understandable, but a very unfortunate shift in loyalty, and it has basically destroyed what I would call the academic community at a campus. William Massy at Stanford has written about this, has researched this topic and published a paper called "Hollowed Collegiality" that reflects on this problem.

LaBerge: For instance now, if you're searching for a dean or you're searching for someone to be a vice chancellor, how has that affected that? Do people want to serve?

Pister: This issue of service is interesting, at least in my opinion, a different matter. I think the overwhelming majority of faculty do still understand that someone has to take the responsibility to administer an academic unit, whether it's a department, an organized research unit, or a school or college. Alas, even somebody has to be unfortunate enough to be a chancellor or a vice chancellor. [laughs] There's an acceptance of that. Typically though, the reaction to a person taking a job like that on the part of one's colleagues is, "Gosh, what is this going to do to your research program?" It's never, "What's it going to do to your teaching?" It's always how will it affect, are you still going to be able to do research? This is one more bit of evidence that the coin of the realm shifted over the post-World War II period.

Having said that, I have found in my experience at both campuses, Berkeley and Santa Cruz, that faculty still, with minor exceptions, accept the fact that some good citizens are going to have to do administrative work and be academic administrators, and they will be respected for doing that, but they won't be rewarded for it. I've talked about the reward system before. But at least they're not looked down upon as they might be in some systems where well, academic administrators are second-rate people. The fact that the UC system, including Berkeley of course, has a system of rotating academic administrators, I think is a very healthy one.

I seem to remember that it, perhaps it's not due to, but at least it's traceable to, Joel Hildebrand in his faculty revolt of the 1920s, when he said that academic administration is too valuable to be turned over to professionals. That has both a positive and a negative

consequence in my experience, too. I agree with him that it would not be as good a university, in my view, if we had professional administrators. On the other hand, that doesn't excuse the university from not doing a more comprehensive, thoughtful job of preparing people for academic administration. I think I've talked about that earlier, how I've felt, in every instance when I was asked to do administrative work, totally out to sea at the beginning, because there was no preparation or really any transition that brought me into the job feeling that I knew what I was supposed to do. Let me see if there's anything else I want to add.

LaBerge: Well, I want to just make a comment on that. Here there's someone like you, how about serving on, for instance, the universitywide Academic Senate and the Academic Council, and then universitywide administration? I would bet it would be harder, if there's not that loyalty, that it'd be harder--.

Pister: Well, I never--

LaBerge: I guess I'm saying I'm hoping there will still be people like you who do that.

Pister: Well, thank you. I think there are. In fact, if I look at the quality of people that have succeeded me in any of the positions that I've been in the administration, I am heartened by the fact that they are fine people. They are qualified people, and they are totally committed. I don't see any deterioration in commitment there. And I don't think that's become a problem, at least I'm not aware that it's been a problem in finding department chairmen or deans in the UC system. A place like Berkeley is large enough so there are always some people that are for whatever reasons willing to--[laughter]

LaBerge: To be in charge.

Pister: To place themselves on the sacrificial altar of administration. What else do we need to say?

LaBerge: Because the other part of that whole topic was the task force on faculty rewards, which we've talked about.

Pister: We've talked about that. Yes.

LaBerge: Well, should we move onwards from this just post-World War II to the sixties?

Pister: All right. I think that could be a useful next step.

The Free Speech Movement and the Sixties

LaBerge: What was your first remembrance of the Free Speech Movement starting in the fall of 64?

Pister: I guess my first recollection is reading about the trouble in the little strip of land, and Clark Kerr's intervention in the removal of the tables from the strip of land and--

LaBerge: So maybe you read about it in the *Daily Cal* or something?

Pister: I was just going to say that. Either I read it, I probably read it in the *Daily Cal* and in the *San Francisco Chronicle*. I think at the beginning certainly, I had very little understanding of and appreciation for what was going on, which is probably not uncharacteristic of most of the faculty on the campus, particularly in the northern side, the engineers. [laughs]

LaBerge: You don't come to Sproul Plaza as a matter of course. You don't walk across there at lunch hour, or--

Pister: Yes, that's right. So it was just what's going on--. The issues at that point were certainly not of interest, and not understood by me, and by most of my colleagues in engineering I would say.

LaBerge: And how about engineering students? Would they likely be part of--?

Pister: Certainly at the beginning, virtually no engineering students were involved in this. Then what happened is that in '65 I went on sabbatical, so I was disconnected from the whole issue during the time I was on sabbatical. But I certainly was engaged enough at that time so that when I was on sabbatical, I still remember one evening in one of the large lecture theatres at University College Cork with this group of Irish kids, I gave a talk on the Berkeley Free Speech Movement. And as I remember it now, probably much to the dismay of some of my faculty colleagues there, I kind of urged the students at Cork to, you know, to take things into their own hands. [laughter] They were very passive there as a matter of fact, even though the Irish, I think, are revolutionary in spirit.

LaBerge: Yes. Well, before that, when there was the big Greek Theatre meeting where faculty were invited and then the Committee of Two Hundred convened, did you participate in any of that?

Pister: No. I attended the Greek Theatre meeting where Clark Kerr spoke. I still have a picture in my mind of Clark Kerr leaving the microphone and Mario Savio dashing up to the microphone to, in his words, simply to announce a meeting of some group, some committee, and the police basically necktieing him from behind and yanking him off the stage away from the microphone. I have a very clear memory of that. But in that period from 1964 until I returned in the summer of, or in the fall of 1966, the memories are really fairly vague.

LaBerge: But what was your leaning? Were you leaning towards supporting what the students wanted, or--?

Pister: You know, in the early part of that period, I think I was pretty much neutral. Then as time went on, I mean, this didn't go away.

LaBerge: Right. [laughter]

Chancellor's Advisory Committee on Campus Rules

Pister: I'm back in 1966 now, and things were still in very bad shape actually. I can't remember all the events, but the next major event that really got me engaged was my appointment to the Chancellor's Advisory Committee on Campus Rules.

[41B]

LaBerge: How do you think you came to Chancellor Heyns' attention to appoint you?

Pister: Well, I'm sure it wasn't his decision. Some process--

LaBerge: For instance, did you know him?

Pister: I did not know Chancellor Heyns. The only possibility is that Professor John Whinnery, who was already very well known on the campus, could have been on the Committee on Committees at the time. I'd have to check on that. Because the way administrative committees--and this was a chancellor's administrative committee--the way administrative committees are typically comprised is that the chancellor will, if it's a chancellorial level committee, will decide on who he or she wants from the administration. Then the chancellor will ask the division Committee on Committees not to give him, just if he wants three people, three names, but a slate of people typically, so the chancellor can make a choice over that slate. Whether John Whinnery was involved or not, I don't know, but I must have been on a slate that was presented to the chancellor's office, and I was picked. Okay.

LaBerge: So you said, "Fine, okay, I'll do it." [laughs]

Pister: Yes. In fact, I had a colleague from civil engineering, oddly enough, Jim Mitchell, who was a long-time colleague, now an emeritus faculty member, he and I were two engineers on the committee, and I remember Irwin Scheiner from history on the committee. Oh boy, I can't remember any of the others, but the one person I do remember was Budd Cheit, who was executive vice chancellor at the time. He was the representative of the chancellor. There were perhaps three or four students on the committee. The one student whose name I remember was Robin Room, who I think later became a faculty member. But the committee had the unusual structure that it had co-chairs. A student and a faculty member were co-chairs of the committee, and they rotated the chair. We met the first time in the chancellor's office, which at that time was in Dwinelle Hall. It was in the northeast corner of Dwinelle Hall, and Chancellor Heyns met with us and kind of told us what he hoped the committee would do, and he remarked, "By the way, in the room we're sitting, the windows were broken some time in the recent past."

Well, when the committee met for the first time, it was a pretty tense thing because the students--what were we supposed to talk about? The issues had to do with time, place and manner. When could students do things, where could they do them, and how could they do them, basically. This was still ambiguous. Well, the first meeting was so tense and so disturbing that, as I think I mentioned to you once, I took a bottle of tranquilizers, which I still have in my desk, and I had to take a tranquilizer pill each time before I went to the meeting.

LaBerge: Before you went to the meeting?

Pister: Before I went to the meeting, yes.

LaBerge: Did you have to go to a doctor to get them prescribed, or--?

Pister: No, my spouse actually had some, [laughter] which she generously shared with me. They were just Donnatol. They were not recreational drugs.

LaBerge: Right. But that's a very telling statement, how tense it could be.

Pister: Yes. It was. And the students on the committee were extraordinarily antagonistic to the administration. I mean, they--and poor Budd Cheit sat there with great patience. As I look back on that, I often had mixed feelings, but more often than not, I voted on the students' side of issues. Administrative committees don't have any real authority. All they do is advise the chancellor on issues. So I have no recollection whatsoever as to whether or not anything we did ever made any impact on anything. It was a sounding board certainly, and Cheit undoubtedly took back information or a sense to the chancellor. And indeed, the students were probably not what I would call representative of the majority of students on the campus. They were activist students, or they wouldn't have been on the committee.

LaBerge: Can you think of an example of something you might have voted on?

Pister: Yes, there were things like, let's say, Students for Democratic Society wanted to use the Greek Theatre for a rally. Would we support that or not? Oddly enough, I still remember one, we had to advise as to whether or not the Wheeler Auditorium could be used to show a pornographic movie. You know, that was unheard of in my experience. I couldn't imagine that that would even be an issue. [laughter] The answer would be "No, of course not. You couldn't do a thing like that," but on the other hand, the students say, "Well, of course." I don't remember if that predated the Supreme Court rulings on things like this or not, but--.

LaBerge: But the discussion was about free speech.

Pister: Yes, it was about free speech, sure.

LaBerge: Free press.

Pister: Yes. So there were issues like what you could do when and where, that kept coming up. And they were usually specific instances. It was almost impossible--I don't think that committee ever came to grips, maybe the record would say that I'm wrong, with actually proposing a set of time, place and manner rules. I think that evolved much later in--this would have been in the--sometime in '67 or '68, in that period of history.

Vietnam War; Vatican II

LaBerge: At this time, I want to just point out for the tape is was when the Vietnam War was going on, and protests of it.

Pister: Yes. The Vietnam War in the background colored this whole thing enormously. I think ultimately what happened is that a style of confrontation developed, particularly after Reagan became governor, that would've been 1967.

LaBerge: I'm trying to think of when Clark Kerr was "fired with enthusiasm."

Pister: Yes, right. You remember one of Reagan's platform planks was that he was going to clean up the University of California mess. You'll remember then possibly what happened, the style of confrontation with the students really began to shift dramatically. The National Guard was called in with bayonets, the Blue Meanies as they were called, the county sheriffs, the deputies came out en masse.

I remember this very well. On one afternoon air force helicopters swooped in over the campus. I was in my office in Davis Hall up on the seventh floor, and when I heard this mass of helicopter noise [laughs], I looked out and here was this squadron of helicopters swooping down from the east to go over Sproul Plaza to spray it with tear gas. And that's the memory that I still have, the number of times that even though I wasn't down anywhere near it, the tear gas moving up into the north side of campus and having my eyes burn from the gas. I still remember [laughs] once being in Wheeler Auditorium one afternoon at a lecture being given by a visiting professor of applied mathematics from Pennsylvania talking about something that I was interested in, an applied mathematics technique that I was familiar with. And we were in this room with the windows open and the tear gas started to come in, and we actually had to stop the lecture because of the gas. That's a vivid memory still. Well--

LaBerge: Now on this committee, did you become one of the co-chairs?

Pister: No, oh no. I never [laughs] had that responsibility. But the point is the context in which the committee began to act, by virtue of the, as I characterized it, a change in the style of confrontation with the students, that began to get to me. The other thing that you mentioned began seriously to color my whole understanding of this, namely the engagement in the Vietnam conflict. And those things kind of became one. Even though they necessarily should not have been, they were. So what happened to me personally in that period was that I began to really have some difficulties in conscience.

I should add, at the same time that this was happening, the Catholic Church was going through some major internal struggles. I mean, John XXIII had constituted Vatican II. We had tremendous hopes that that council would do some things, as he said, "open the window for the church," and indeed it did. But there was this whole crisis of authority in the church that was on my mind as well. Indeed, I think I saw this, whether consciously or not isn't clear, I felt it as informing my own conscience about what was going on in our society. I think you've read the piece that I wrote in 1969 on the crisis at Berkeley.

Symbolic Personal Changes

LaBerge: Yes. "On the Berkeley Crisis."

Pister: Yes. I wrote this, I know it was published in the *Catholic Voice*, which was the newspaper of the diocese of Oakland. It begins with the statement that a piece of concrete crashes through the window of a building, and it was my own office on this particular day. I was sitting talking to a student when a chunk of concrete flew through and crashed literally on my desk. I talked about this in the context of the so-called Kerner report, which was a report on racism in the United States that was published in that period. [1968] What I think I was beginning to feel at this period of time was the incredible issue of social justice in our society. I saw both the Free Speech Movement and to a certain extent the war and the whole issue of exercise of authority as sidestepping what you might call the real issue and focusing on things that I thought were surrogates for the real issues in our society.

These things were colored by my sense of how I should come down on these issues to the point where I did some symbolic things that in retrospect I think are kind of silly, but at the time they didn't seem to be. I had been a lifelong Republican up until this point, and I, along with my spouse one day made a dramatic change and registered in the Peace and Freedom Party, leaving forever my paternal allegiance--allegiance that came from my father, I should say--to the Republican Party.

The second thing like this that I did was to--along with some colleagues--write a short letter to the editor of the *Daily Cal* expressing my displeasure in the behavior of our chancellor.

LaBerge: Namely Roger Heyns.

Pister: Roger Heyns, yes.

LaBerge: For what?

Pister: For the way he was treating the crisis at Berkeley. I don't know why I would have thought this would have been an appropriate thing to do, but I did it along with, I think, about six of my colleagues in my department, and I joined the American Federation of Teachers. Somehow I felt this was a protest against the style of reaction of the chancellor to the problems on the campus. Looking back, neither of these symbolic acts on my part can be explained as a rational decision. I think they were symbolic but irrational. They were emotional.

LaBerge: But, symbols are very important. Yes.

Pister: Emotional, yes. I don't remember when I changed my political affiliation, but at some time in the seventies, I returned to a historically active party, the Democratic Party. And at a certain point I dropped my membership in the AFT. I remember going once to a meeting, an AFT meeting, when our lawyer, whose name escapes me, really just railed at us saying, "All right, you faculty members, now you've got to go out on a sympathy strike with your brothers in this area." And I said, "Brothers? These guys aren't our

brothers. They don't care about academic members any more than the academic members care about them really." I remember a few members of the faculty did picket out at the North Gate but I had nothing to do with that. At some point, I dropped my AFT membership as well.

Subsequently by the way, when I was asked to be chairman of the Academic Council, I remember in a quiet moment telling Archie Kleingartner, "Archie, you need to know that I was once an AFT member. So I don't want to surprise you," [laughter] because here I was now at a certain point when this whole business of collective bargaining came up, I was sitting in with the president's inner circle talking about how to deal with the--

LaBerge: The unions.

Pister: "The menace of unionization" at the university. I didn't want someone to dig that up and throw it in somebody's face. Anyway, so that was an interesting experience.

LaBerge: Another thing you have written on your list is the beard. How did you decide that?

Pister: Yes. Some time, after I had served on the rules committee. I decided to grow a beard--and many faculty did. I wasn't the only one.

LaBerge: But for you, was it the first time in your life?

Pister: The first time in my life. Well, as a young man, I went off on summer hikes in the Sierra for two or three weeks, I obviously didn't shave, but shaved it off when I got back. So I grew a beard, much to my spouse's dismay I might add. She never did like that.

LaBerge: I wondered too, how old were your children at this stage and how did they react to what was happening, how you were changing and what was happening?

Pister: You know, I've never talked to my children much about that.

LaBerge: But you don't remember, like you didn't walk in and they said, "Oh, what are you doing, Dad?"

Pister: No, I don't think--

More on the Turbulent Society: Nation, Church, University

LaBerge: Maybe they didn't know you were going through something, because sometimes kids don't--

Pister: Well, you know, our dinner table conversation in the sixties almost every night would be about the war, about the changes in the church, and our kids just were absolutely flooded with social issues at the dinner table. The other thing that we always did at the dinner table was to talk about words. I mean, if somebody used a word that somebody didn't know, we got out the dictionary. It was always to the point where, when we went to

Germany in the 1970s, there was an English language program for Germans in the use of English. And it always ended up with, after they went through a dialogue, they would say, "Let's take a look at tonight's words." [laughter] And so that became a catchphrase in our family, "Let's take a look at tonight's words." I think our kids really appreciated that, but the point is that, along with social problems in society, issues really occupied our dinner table conversation. So they were very much aware of issues that were on my mind and on Rita's mind with respect to church issues, because she was very much engaged. She was, during that period, active in our parish in the Confraternity of Christian Doctrine, the--

LaBerge: The CCD.

Pister: The CCD, that is religious education for children in the parish that were not going to Catholic schools, which was, of course, the vast majority. So we were engaged in issues like that. I still remember her ordering a box of bibles, the *New English Bible,* which came out sometime in the sixties, a wonderful translation. The box was opened in the rectory, and the assistant pastor confronted her and said, "But there's no *imprimatur* in this book. You can't use this in class." [laughter] And so they had to burn the bibles. Well, that's an extraneous remark, but it kind of shows the conflict in many areas of our lives at that point that occupied us.

LaBerge: And how about, you have written, but I don't know if we've really covered it, "Tensions with Budd Cheit." And you wrote it twice so I--did something occur?

Pister: [laughs] Well, no, the point was that Budd was the administration sitting on that committee, and he had to hold up, understandably and correctly, the position of the administration, and frequently I, sometimes other faculty members and the students would be opposed to his view. So our earlier meetings were, I'd say, very adversarial. I still remember [laughs] at the end of the year Budd said to the committee at one point, "Well, I'd like to, on behalf of the chancellor, host a dinner for the committee, if that's permitted." [laughter] So anyway--

LaBerge: Did you have the dinner?

Pister: We did have the dinner. Yes, I don't remember anything about it, but I still remember that remark--

LaBerge: "If it's permitted."

Pister: --because it expresses the kind of tension that existed on that committee. Since I wasn't happy with the administration's handling of this whole thing at the time, and Budd personified the administration, I naturally was in an adversarial position. Just for the sake of the record, I want to say that thanks to Budd's understanding of the possibility that people's views can change over time [laughs], he and I became very good friends subsequently when he and I were both deans together. And when he was interim vice president, we worked very closely as I've already mentioned, and I consider Budd to be a wonderful and dear colleague of this campus.

Let me see, the other thing that I remember happening was associated with--going back to style again and style of dealing with confrontation--the utter inability and the improper use of whatever abilities they had, of the police in dealing with protesters. At that point in

history, our police, including our campus police, simply lacked the training and the understanding of how to deal with protesters. Fortunately, we've gone through that now, but at the time it was very bad. It was so bad that some of the people that were arrested were, really I'd have to say, mistreated badly so that the Berkeley division constituted a committee of watchers that went down to be with the police, to see that people that were arrested were not beaten up, because that was happening. And indeed, people got shot at with buckshot, I think, in those days. As you remember, one person was actually killed during a march.

So it was a very unhappy time for everybody, I might add. It certainly disrupted the academic mission of the campus. Even in engineering I remember having classes where some part of the class had to be devoted to talking about the issues on the campus, including my graduate classes. I have a couple of memories of that period that I shouldn't forget. I remember taking part in some noon meeting with students and faculty over in North Gate Hall in the lecture room there. This was at the time of the push for a Third World College. Indeed, I treat that issue in the piece I wrote on the Berkeley crisis, what I thought was a legitimate position of people arguing for a Third World College. That college was never created. But an ethnic studies department was created as a consequence, which is a kind of surrogate for a Third World College. Anyway, apparently something that I said at that meeting got back to my dean, George Maslach, and I remember getting a call from George saying, "What are you saying? You're going to get yourself in a lot of trouble if you keep talking like that." I can't remember what it was, but anyway, he was putting me on alert that I was getting too far out. [laughter]

The second thing, an anecdote in this same period that I remember, was a department meeting in civil engineering up in Davis Hall. I remember there was a resolution that was going to be presented to the department by one of my senior colleagues. I have trouble remembering what the resolution was, but it was something that was very offensive to me and to some of my colleagues in our division. So the chairman called the meeting to order, and immediately I called for a vote on adjournment, which was not out of order. And he had no choice but to put it to a vote even though he had just called the meeting to order. I had done enough homework to know that it would carry it, and so the department voted to [laughs] adjourn the meeting before it even started.

LaBerge: Who was the chairman?

Pister: He was the late Harry Bolton Seed, a wonderful man who had an untimely early death. Harry Seed confronted me outside of that meeting room that day and said, "Well, Pister, you were probably going to be the next department chairman, but your career as an academic administrator is finished." [laughter] Poor Harry, I think he lived to see me be dean, but he didn't certainly have a chance to see me become a chancellor or a vice president of the university. But at the time that he said that he was probably right [laughs] because I had certainly stepped on his wagon.

LaBerge: Do you have any recollection of--it was called the "Select Committee Report"? Charles Muscatine was the chairman.

Pister: Yes.

LaBerge: What was your reaction to that?

Pister: That was a report, the Muscatine Report--didn't that, among other things, establish or allow the establishment of Strawberry Creek College?

LaBerge: I don't think it actually said that, but it did establish the Board on Educational Development.

Pister: Yes. Right.

LaBerge: And had maybe thirteen or more--

Pister: Right, and it led to putting students on senate committees and--

LaBerge: Yes.

Pister: Yes. My recollection is I was generally supportive of the Muscatine report, but I'd have to go back and review that more carefully. Well, I think that's all I can say. I thought the Strawberry Creek College was a sensible idea, but like so many things, if it's not in the mainstream of culture on this campus, it's very difficult to keep it alive, and that was the problem. It was in a sense a kind of a modest attempt, like the creation of the Santa Cruz campus, as a countercultural experiment, and neither of those really survived in the form that the founders intended.

[42A]

Pister: Lest it be forgotten, I want to be sure to put on the record my sympathy for Roger Heyns. I think I had the opportunity once to express this to him, as I did to Mike Heyman, for very different reasons. Under Mike we had no Free Speech Movement, but as a dean I had less understanding than I had subsequently of the stresses on a chancellor. And certainly during Roger's chancellorship, I had no appreciation or understanding of the constraints with which he had to live and the complexity of dealing with a crisis of the magnitude that he had at the time. Fortunately, I had a chance later on, when Roger was president of the Hewlett Foundation, to serve on the board of directors of the California Council on Science and Technology with him. In fact, I was appointed chair of that board when Roger was still a member. So we overlapped for several years and I had the pleasure and good fortune to work with him under much less [laughter] strenuous times. And I'm pleased that either Roger never knew or he forgot what a miserable--

LaBerge: That you had written a letter to the editor. [laughter]

Pister: What a miserable faculty member I had been in his eyes, I'm sure. Do you have any other thoughts on what we ought to--?

Vietnam War Issues and ROTC

LaBerge: I'm trying to think of what else I'd like to ask you about your remembrance of things. What about, for instance, navy recruiting tables and other--?

Pister: Yes, I was not sympathetic with the--

LaBerge: Because you were still in the navy.

Pister: Oh, I was--well, I'm glad you raised that, because that's something I want to comment on. No, I had no sympathy for the people who wanted to trash the military and the people who wanted to get rid of ROTC, because I thought then and I still believe that the Reserve Officer Training Program is an extremely important adjunct to our military academies, that it allows the creation of an officer corps that is not entirely indoctrinated by the military service itself. And not to mention that it draws from a different talent pool, so that both the army, air force, as well as the navy ROTC programs, I think, are very, very important. And I'm delighted that Berkeley really never went as far as Stanford did to get rid of those programs. We, I think I commented on this earlier, the Berkeley faculty did withdraw credit for ROTC courses during the 1960s. And I think, as I've commented, I was chairman of the policy committee at the time when the restoration of credit to ROTC courses became a matter of vote for the Berkeley division, and I'm pleased that when I was chairman I was able to accomplish that, and we restored credit. Anyway, so that was something I was never in sympathy with--or the recruiters for federal agencies and things like that. It seems to me that's denying a freedom that the Free Speech Movement ought to have respected. But it was so colored by the tragedy of the Vietnam conflict that many people probably went overboard on that.

LaBerge: How about People's Park? What do you remember or what were your reflections on that?

Pister: My reflections then as well as now have been very negative on People's Park. I thought from the beginning it was a bad idea, and indeed even though it was, I think, impossible to reverse what happened there, it was a serious mistake that we're living with these many years later. It's never been put to what I would call the beneficial use [laughs] of the city or the university to the extent that it ought to be. It's a blight on the city of Berkeley and the university in my view. It's a conflict now that in some small way reflects the Middle East conflict.

LaBerge: Absolutely.

Pister: I don't see, short of a very dramatic change in the culture of the Berkeley City Council and the people of Berkeley [laughs], that it is ever going to change. It was a tragic situation from the beginning, and of course it led to one person's death and untold other injuries to people along the way.

LaBerge: What was your reaction to Clark Kerr's firing?

Pister: Well, I was never a great fan of the governor, nor his presidency, I might add. But at that point I thought it was a great tragedy not only for Clark but for the university. It was a very clearly political act that I don't know to what extent the governor understood the consequences of. But I think he was so fixed on carrying out what he thought to be a necessary cleansing of the university and its culture and its leadership, and that was the way he could start doing it, by getting rid of the president. It's unfortunate that the board, you know, didn't try to temper that. In reading Kerr's first volume on the history of the university, I remember he treated that. The board was divided, but the majority of the board obviously went with the governor, and as I remember, the regent most influential

there was Regent Pauley. Pauley really wanted to get rid of Kerr from some time ago. [laughter] So he managed to line up enough people on the board.

The overt use of power in what I would call a totally political way, just to complete this discussion, occurred again with Governor [Pete] Wilson when he decided that SP1 and SP2 [1995] were to his political advantage, just as Governor Reagan did. And he did what he did, in spite of the pleas of a number of regents not to do it at that time at least, until the ballot measure had been voted on by the voters of California. It is interesting to speculate as to whether or not, had SP1 and SP2 been delayed until after the election, whether the outcome of the election might have been different. I don't know.

LaBerge: We'll talk about that more when we talk about the diversity issue.

Pister: Yes, right. So what else do we have on the platter?

Speaking on Behalf of the University

LaBerge: Oh, I know. There are several things from that '64 to that '68 period that you had written down that we haven't talked about. Something about the Lions' Club and the Rotary at Winters. I don't know anything about that.

Pister: Oh, great. Yes, I'm glad you brought that up. Oh, indeed. During that late sixties period I believe it would've been, or it could've been even as late as the early seventies, the Berkeley division, I think under the leadership of Adrian Kragen who was in the law school; --and I don't remember what Adrian's actual position was, but he took the leadership in this. Adrian constituted a group of volunteer faculty who would be willing to go out and speak to the rubber chicken circuit.

LaBerge: [laughs] Do you want to explain that for the readers of this?

Pister: [laughs] That's the service clubs, Rotary, Lions, Kiwanis, and so on. So that a corps of us went out on assignment to different service clubs to speak about Berkeley and the crisis at Berkeley and to try to give a better understanding of what was going on. For reasons that I have no knowledge of, I was asked to go to a Rotary Club meeting in the town of Winters, California.

LaBerge: They didn't censor which faculty they were sending out, because [laughter] you were one of the protesters!

Pister: I don't know.

LaBerge: You must have shown goodwill somehow.

Pister: I wish I could place the date more accurately because it may have been earlier, later in the '70s when my political views had tempered a bit. I don't know. But that's not the end of it. Again, for reasons I have no knowledge of, Channel Five television decided they would televise this whole thing and put it in a program that they were doing on the

university. So one morning my wife and I got into our old Plymouth station wagon, which we used to call Black Fury, because it was a black station wagon. We drove up to Winters, but on the way by pre-arrangement, and I think it was at the intersection of Interstate 80 and whatever goes north to Winters outside of Vacaville, there's an intersection there, we by pre-arrangement met the Channel Five cameraman, who climbed into the back seat of the car and rode up to Winters with us, talking to me the entire way and filming me through the rearview mirror. [laughter]

So we arrived at a restaurant in the town of Winters early before the people got there, and I went into and sat down, there was a bar in the restaurant, sat down at the bar and started talking to the bartender, and he asked me what I was there for. I explained that I was coming up to give this talk on the University of California to the Rotary Club. He looked at me, and he said, "The last person from the university that came up here, we ran out of town." [laughter] I don't know exactly what he meant by that, but--. So that was not a particularly great introduction. Well, so I had to get up, and I think I still had my beard at that time, and give an account of the affairs at Berkeley. At that point--well, I always felt that there was a lot of misrepresentation in the press, that there was still a lot of good stuff going on at Berkeley. We weren't all a bunch of anarchists trying to tear the place down. So I gave my talk, and I remember it was a very spirited, very antagonistic discussion afterwards, and this cameraman was filming the whole thing.

Subsequently I remember seeing it on Channel Five, but at this point I couldn't tell you how it appeared to me. I don't think I scored many points, although afterwards I remember going over to the Bank of America and talking to one of the officers of the bank who had been at the meeting, and he was very cordial and fairly okay with what I had to say. But that was quite an experience in dealing with a very unreceptive public at that time.

I also went to, at the same time, a Lions' club meeting in Lafayette. One of my good friends was a member of the Lions' club there. I remember the way I approached that talk was to--I had prepared a short quiz, and I had a series of questions that were designed to counter the kinds of exaggerations that were taking place in the press. However, my best recollection [laughs] of that experience was that there wasn't enough time really to deal with the quiz properly, and I had to rush through it.

I hadn't learned yet, subsequently I learned, after substantially more experience as a dean and chancellor, that these luncheon club appearances were very much just part of an obligatory structure that they have that was certainly not the high point of the lunch.

LaBerge: Right. [laughter]

Pister: The salute to the flag, and the singing of the anthem, and the collecting of fines for misbehavior and all, and the announcement of visitors, and the people who were making up meetings and all of that, was the main purpose for the meeting. Well, along with meeting each other as business acquaintances to keep their businesses up, the speaker that was brought in was kind of an afterthought. I hadn't learned that yet. I subsequently learned that you can probably at best speak for five minutes, and that was about it. I may be a bit harsh on these service clubs to which I had never any, not even the slightest interest in joining. [laughs] So much for Winters and the Lions.

LaBerge: I have gone down my list for this subject, anyway.

Pister: Okay.

LaBerge: Now I could just ask you a general question or we could run onto one of these other--

Pister: Do you have a general question?

LaBerge: Yes, I do. I do. Well, not just at this time, but through your whole life, you were raising six children. You have a wife and family. Yet you seem to have done so much on campus outside of just your teaching and research. How did you find time to do all of it?

Pister: Well, [laughter] that's, Germaine, that's really a very good question, and my wife and I have wondered about that, even restricting that question to raising the six children. [laughs]

LaBerge: Exactly. And also you were doing a lot of the driving of the six children. That meant racing back and forth.

Pister: Yes. And I haven't mentioned yet that my wife had a chronic illness as well that was very debilitating, and indeed in 1962 during the midst of all of this, she had very serious surgery and we almost lost her. I just don't know how we fit it all in. Our children, even though they were close together, were very self-reliant. I think they had to learn that for their own survival. So that my oldest daughter [Therese] helped with the younger children, and as her sister came along, Anita the second, Anita was a great help. They helped with cooking. They did things that normally in a smaller family the mother would do. So that, being a navy person, I had things [laughs] very structured so that there were jobs in the home that people did, and they were expected to do. They weren't jobs that they had to do so they could earn an allowance, because we didn't give allowances. We didn't have enough money to give six allowances. We gave money to our kids when they needed it for something, but until they started doing things like babysitting or working, our oldest son worked as a gardener out of the home, and things like that, they didn't have any money. So these are structures that we operated with. We really perfected that when we took our family on our first sabbatical to Ireland, when we had to move like a military unit or [laughs] we wouldn't have made it. We'd still be looking for our kids over there if we hadn't been very, very tightly organized.

So I think it's as much the reliance on their ability to manage their lives that made this possible. Because on top of that, I mean, I traveled. When I look back on some of that it makes me cringe. In 1963, in April of 1963 my father died, and that year Rita's father became quite ill. He had osteoporosis-type problems in his spine. So he came and lived with us. This was just a year after Rita's surgery. So my father had died, her father was living with us, and he was pretty much an invalid. Rita was pregnant with our youngest son Kris. In September of that year what did I do? I took off to go to an international meeting in Poland, which I felt was critical to my professional life, leaving Rita at home with her invalid father and pregnant with Kris to be born in December. I look back on it, and say, gee, this was a very unreasonable thing to do. But she survived because her nephew came and helped with the family.

LaBerge: And your mother-in-law used to come and help.

Pister: My mother-in-law, certainly helped a lot, but at that point, I mean, my wife's parents were divorced at that point in life, so she wasn't like a caregiver anymore. They lived separate lives. But that's just an example of the stress that I put on the system by maintaining this life, this professional life. I think like many professional men in positions like this, particularly academics, we often justified it and rationalized it on the basis, "Well, I'm doing this for my family because I need this to advance to get a higher salary to--as part of--"

LaBerge: To support the family.

Pister: To support the family. Probably that's an exaggerated view, but it certainly was in my mind often. I worked nights, every night, seven days a week, either preparing lectures or doing research. I took time off on the weekends to be with my family, but I always worked at night. I still remember how my youngest daughter Mary Claire used to see me grading exams, grading blue books at home at my desk, and she'd come up and massage my neck because she said if she does that I'll feel better and I'll give better grades to the students. [laughter] She still remembers that, and if she comes over with her children now and if I'm sitting anywhere, she often does that and it reminds me of the times when she did that when she was a little girl. I don't know, it's hard to imagine how, particularly now when I can only do a fraction of that--.

LaBerge: But you still are doing so much. You're always going to one meeting or one committee or--

Pister: That's the other thing. One becomes habituated to a style of life, and it's very hard to break old habits, isn't it? I find even now that I'm unemployed, but not entirely retired, that I, at home, if I don't have something very specific to do, I immediately have a guilt feeling that I'm not using my time wisely. And I have to be doing something all the time. So it's a consequence of those forty years or so, fifty years, when not to have something to do specifically related to the university was well, that was almost sinful. That was what I should be spending my life on.

LaBerge: Well, you obviously manage your time well. You are organized. You can tell from all these outlines.

Pister: Well, but if you asked my wife, she'd say, "Yes, he's organized, but he's a last minute person." [laughter] I put off, I used to put off everything until the very last minute and then crash through.

LaBerge: Well, if you have other thoughts on that later, you can add them later, because I kind of threw that at you.

Pister: That's a very good question, and I'm glad you asked it because it's one that--I think when the opportunity comes to talk to my wife, it'll be interesting to ask her that same question too--

LaBerge: I'll ask her that same--

Pister: --because it's something we've both talked about.

Department of Defense Work on Campus

LaBerge: Well, should we end there and then do the diversity next time?

Pister: I think it's a good lead also into diversity because we've talked about the issues that undergirded this very troublesome period in the 1960s, and didn't go into the sixties, the early seventies, with the Cambodian spring. I still have very vivid recollections of that period because there was a strong movement at that point to keep the university out of Department of Defense activities. I don't know if you remember that period.

LaBerge: I wasn't here then so I--

Pister: Yes. "The university should have nothing to do with the Department of Defense. That was an evil agency, and we should be separate from it." All during this period, again, this connects to an earlier discussion. I maintained my connections with Livermore, and I had research sponsored by Department of Defense agencies all during this period. I remember at one point there was, I can't remember what the group was called, I think the leader of it was Charles Schwartz, a colleague from the Department of Physics. At one point, they published a campus map showing the locations of all the offices of faculty members who were doing Department of Defense research. I remember one evening they proposed a march on the home of Edward Teller, and indeed they marched by the engineering buildings, and I think someone trashed a window in the glass wall between McLaughlin and O'Brien Hall. But a number of us were very concerned that this organization would do something like trashing our offices, like they did at Stanford with President Wallace Sterling. They trashed his office twice. So that was a cause of concern for us. But nothing happened, fortunately. I just finished Edward Teller's biography, and the police intercepted that group, and they never got to his house on the night that they had planned to go up and confront Edward Teller for his work with defense.

LaBerge: And you never received any threats like phone calls or--?

Pister: No, none that I'm aware of. I don't even remember ever getting letters of any kind. I do recall that the Berkeley division voted to go on record as opposing the conduct of any classified research on the campus. During some periods in the fifties and sixties I had in fact done classified research on the campus. It was not a high level of classified, it was just confidential work, and I had a file cabinet with a safe lock on it so that I could keep confidential documents. But following that resolution, we stopped doing classified work on the campus, and I no longer had a secure facility. Anything that I did then was done away from the campus.

[laughs] Although, I'll have to mention, lest I forget it, a very amusing thing that happened some time in the 1980s when I was a member of this advisory group for the Defense Nuclear Agency, which was, I think I've talked about it, a very hush, hush agency that I had to get clearance at this special compartmentalized information level. For some reason someone in that agency sent out materials to members of the committee, including myself, that was secret restricted data, and it came to my Berkeley dean's office. I get this package delivered, and inside, of course it's not marked SRD on the outside, but inside it's secret restricted data. Now, here I am in Berkeley with this package with no safe place to put it. It was a terrible mistake on their end because they

knew if they had looked at their records that I was not a person that had a facility that could take this information. So I can't remember, I called up somebody at Livermore, I think, and said, 'What do I do?" They said, "Well, lock it up someplace." And the next day two air force officers came and took the package from me, and that was the end of it [laughter]. So fortunately that never caused me any problems.

Ceremony transferring Ft. Ord land to UC and CSU, 1996: President Jack Peltason, Chancellor Pister, and CSU Chancellor Barry Munitz

Karl S. Pister with Congressman Sam Farr at Ft. Ord ceremony, 1996

XIII. DIVERSITY

Growing Social Consciousness

Pister: The last thing I guess I would say is that during this period of the sixties and early seventies when there was so much turmoil over the Free Speech Movement and involvement in the war--and as I said, I connect this also to the issues that were taking place in the church--

LaBerge: And we didn't even mention civil rights.

Pister: Yes, certainly the Civil Rights movement, the experience of the Mississippi summer, the three young men that were murdered in that Mississippi summer, and the march, particularly the march at Selma and the Rosa Parks incident, my trip to Huntsville, Alabama, and going to a liquor store and finding a black and a white line in the liquor store. These things began, I think, to--

[42B]

Pister: To create for me a dilemma in my conscience and to begin to understand the level and breadth of social injustice in our society, and I noticed that was reflected a bit in the article I wrote on the Berkeley crisis, the issue of social injustice and the inequity that existed in terms of access to education in our society. I believe, although that was still at a kind of a fairly low level in informing actions, it began to create a sense in my mind that there was something wrong here that I needed to be more conscious of and to act upon, to deal with. So that when we look at the evolution of my commitment to diversity in the university, I'd already laid the groundwork for that earlier in the sixties. I probably was even unconscious of that fact, but it was there. So that when I became a dean and later a chancellor and vice president, I certainly can trace this early awareness and concern about social justice back to the sixties. Even though at that time the implementation, or the act--I'm not getting the right word--my action or reaction to that was only symbolic, as I did these couple of things. I don't remember, even in church, in getting involved in social justice issues at that time. I don't think the church at that time was really caught up in that issue, even though some earlier encyclicals by--

LaBerge: Pope Leo XIII?

Pister: --by the pope. There was a famous encyclical on social justice, *Rerum Novarum* as I remember, that talked about the rights of workers. I mentioned in that article too--

LaBerge: I think maybe we should put that article as a part of the appendix or something.

Pister: Yes. I think it expresses some things that for me became very important in my life later on. I'm trying--

LaBerge: You mentioned *Pacem in Terris*.

Pister: Yes, that's the one I was trying to get back to, and now I can't find my copy, my reference to that--there's a particular--

LaBerge: Right on the first--

Pister: Yes. Right there on the first--. In that encyclical, Pope John XXIII spoke of the right to life and a worthy standard of living. I think that, coupled with another social encyclical that expressed the Catholic position on education that said that the responsibility for education of children is vested in the parents of the child who in turn transfer that responsibility to the school. And clearly there's a total--not a total--but there is a significant breakdown in that chain of responsibility in our society that started back with slavery, the issue of slavery, when the children of African-American people were not permitted to be educated. The consequence of that several centuries later is still upon us in my view. It's something that colors or informs my view of access to education and the importance of keeping that issue before us. So this is kind of a prologue to the discussion we will have next time about my involvement with diversity in the university.

Faculty Work on Diversity Issues

[Interview 22: May 20, 2002] ## [43A]

LaBerge: Last time we were discussing a different topic, but we finished with your growing awareness of social justice issues, and that will send us right back into finishing our discussion about your involvement with diversity. So I guess we'd like to pick up some things we haven't talked about in the eighties.

Pister: Okay. Looking back at my records, there are a couple of things. During the time I was dean, I was appointed to a committee of the American Association for the Advancement of Science in the education human resources directorate which was directed by Shirley Malcom. It was a committee on opportunities in science and a very fine committee, including people from all around the country, African American, Native American and Hispanic representatives on the committee. So I really got a wonderful cross-section of opinions on issues concerning diversity, and the opportunities in science had to do with providing access to science education for underrepresented children in the country. It

really sharpened my understanding of the issues and gave me a lot of help, which ultimately when I went to Santa Cruz was very useful.

There were a couple of other things in that period that I think I overlooked. Just at the end of my term as chairman of the Academic Council, in fact just three days after I was no longer chair, September of 1980, I was asked to make a presentation at the fourth annual outreach services conference of the president's office. So this involved people from the president's office and from the campuses that were involved with student affirmative action. I gave a paper there. I think it was an after dinner paper, and I notice it was thirteen pages long, so people must have been quite nervous by the time I was finished. My wife wasn't there to remind me that I shouldn't--speak so long. It was called, "Student Affirmative Action: A Faculty Member's Perspective of Past Failures, Current Problems and Opportunities for Future Success." It emphasized, I think, something that at that time was very clear to me, and I don't think subsequently changed a great deal regrettably, that virtually all of the efforts to deal with the problem of underrepresentation of students in UC were efforts that were carried out by members of the staff, not the faculty. The faculty engagement with this issue was slight. I took the position in this paper that not only should individual faculty members see this as a part of their proper work, again to use that technical term of art, but that the Academic Senate ought to be more explicit about the importance of faculty engagement in this work.

So that it is interesting, back in 1980 this foreshadowed the later work that I did on the Task Force on the Faculty Rewards System where once again there was a strong current of support for faculty members engaging in affirmative action work. Essentially all the time I was dean, this was an issue for me as well as the time I was chancellor and ultimately vice president. So that while it was a view that was expressed by a single faculty member, born of my experience up to that point, it's something that I'm sorry to say still hasn't really made it in the University of California.

It's an issue that remains; just to make that statement very current, this year I have been appointed to the Berkeley division's Committee on the Status of Women and Ethnic Minorities, and in that capacity I had the opportunity to review a draft of the current strategic plan that a strategic planning committee of the campus is putting together. I along with my colleagues on that committee were, I think, properly dismayed at the draft that we first read in that it really gave diversity issues on the campus a very, very slight and totally inadequate treatment. We haven't remained silent on that matter [laughs] I might add. But I cite that only to make more explicit my concern that there still remains, in spite of many good efforts of many people over several decades now, a disjuncture or a disconnect between the problem and the faculty's willingness to address it as a problem that belongs to them.

Minority Engineering Student Program

LaBerge: When you mentioned that you thought that members of the staff were involved in affirmative action, what kinds of things did the staff do?

Pister: Well, the staff were responsible for doing outreach work to K-12 in programs like MESA. The work that was done in the Office of Relations with Schools at that time was essentially staff. The retention or enrichment programs on the campus here like the PDP program at the Berkeley campus, this was a staff activity. They had a faculty advisory committee, but there was relatively little contact with faculty. It was all very ad hoc.

LaBerge: What kind of response did you get from that paper?

Pister: Well, I remember that Mac Laetsch who was just, I think, coming in--yes, that would've been right--he was coming in as vice chancellor for undergraduate affairs with Mike Heyman's administration, as I was, coming in as a new dean in Mike's administration. He was very supportive of my remarks. Indeed, I think I may have already mentioned that when I did become dean in my first admissions cycle, it was Mac Laetsch who brought to my attention, because I was simply unaware of the fact that in the admissions cycle, '80-'81, engineering was not doing a very good job in admitting underrepresented students. It was really a phone call from Mac that woke me up to the need. I started in January '81, even though I was appointed in July '80, because I had a sabbatical in that year. I was certainly aware of the need for this, but I hadn't gotten around at that point to dealing with that issue. He certainly raised my level of awareness of the issue and ultimately led to my creating, with the help of my staff, the first undergraduate program for engineering to support underrepresented students, called the Minority Engineering Student Program, MESP. Later we adopted the statewide name, MEP, Minority Engineering Program, and I think I've already talked about it as a precursor for ultimately creation of a center for underrepresented engineering students, a very successful one I'm pleased to say.

There was another opportunity that I had to address the problems of support for underrepresented students once they came on the campus or more generally, how to deal with this across institutions, post-secondary institutions. It's one thing to admit underrepresented students. It's quite another thing to graduate them because there are real, and I think I've talked about this already, very serious cultural and orientation adjustment problems that a student, particularly first generation college attendees, will have.

LaBerge: You even cited your own adjustment as a freshman.

Pister: Yes, exactly, right. So I had a chance--I notice it was in November of 1986--to address the fourth regional conference of a group called the National Association of Minority Engineering Program Administrators. NAMEPA, it's called. I was really pleased to be invited to address that group.

I think the most important point that I made in the talk had to do with the provision of programs for students in engineering, which was what this group was dedicated to--the provision of support programs at the current time, that was in the 1980s, was specifically tailored for underrepresented students. But I raised the issue, suppose in fifty years there were no such thing as underrepresented students? Would this kind of a program go away? And my point was that no, I think it's the kind of program, if we had the resources, we should have for every student. In other words, most students need some kind of support beyond the classroom, and they don't receive it--in the kind of a commuter campus that Berkeley is, it's very difficult for students to find the opportunity, the venue to get together to help one another and to be helped. That's the kind of thing that our minority

program did. It gave a place and a process for students who needed support either because of their classroom work or for other reasons to get that support. So that was my point, which I think is important. It's something that, at some institutions, particularly private institutions, is much better done than at large public institutions--the personal attention for students that need help.

LaBerge: But I guess that there always has been this for athletes on campus. Is that right?

Pister: Yes. That's another good model. The student athletes could not possibly make it at a place like Berkeley or at most places, given the demands on their time, without this kind of support. There's absolutely no question about it. For different reasons, minority students have the same problem. And some majority students, as I mentioned like myself [laughs], it's a cultural adjustment that I had difficulty with.

So we've talked about the conference in the winter of 1990, the All University conference where I gave a white paper, and which as I said, led ultimately to my being asked to serve as chairman of the Task Force on the Faculty Reward System.

"Fixing the Educational Pipeline"

Pister: Then the last thing in this period that I want to be sure I mention is that in 1990, it must've been spring of 1990, I wrote an article in the College of Engineering's magazine called *Forefront,* which was an annual publication describing primarily the research of our faculty. But this issue had an article that I wrote called "Fixing the Educational Pipeline." It's the first thing that I'm aware of or the first thing of record at least that I find that really explicitly connects my concern with the education of engineers at the postsecondary level with the problems that were beginning to be very clear in our K-12 system in California, but more generally in the United States. I suppose what this reflects is that was just a little more than a decade after Prop. 13 in California, and ten or twelve years' worth of underfunding of our K-12 system had begun to produce the fruits of that underfunding.

I mention here that the production of or the creation of professional engineers really began in pre-kindergarten with education in the K-12 system, from pre-K to 12 really, that's where you have to prepare engineers. When looking back on that now, I certainly [laughs] find no disagreement. Indeed, I don't know how many times since then in the last twelve years I've had to come back to the same thing when people propose this or that program, this or that intervention somewhere in the system to increase the flow of scientifically and technologically trained individuals, you have to go back and say, "Yes, but if you don't start at the beginning, it's very unlikely that you're going to be able to sustain any kind of increase."

Most recently the California Council on Science and Technology, with which I've been affiliated now for the last ten years, has produced a study called "A Critical Path Analysis of the Science and Engineering Workforce in California." I'm very proud of that study. I was only a reviewer of the final report, I didn't participate in the study. It's the first instance, at least in California, where a serious systemic or systems engineering approach

was applied to the problem, to look at the flow of students beginning in kindergarten all the way through the doctorate at each step of the process of education. Where is the attrition? Where are the issues? What are the constraints on producing a sufficient number of scientists and engineers to sustain our economy? It's a very significant document that I hope will have an impact in California. But the point is, that's kind of the alpha to the omega for me [laughs] from this paper that I wrote in 1990 to the present time when this latest report has just come out.

LaBerge: How about as a father of two engineers, or do you have more than two engineers?

Pister: Two engineers, yes.

LaBerge: Can you see, whatever happened in your house and in their education that fostered that, or was it just osmosis from having a father in the field?

Pister: That's a really interesting question. My youngest son and my third daughter are the two engineers. So all of my children were exposed to the same parental model. [laughs] Interestingly enough, probably four out of the six were really interested in mathematics and science. The two boys, the oldest and the youngest in the family were interested in mathematics and science, and in fact, were very, very good at it. And the one daughter that's an engineer was very good. My oldest daughter who is a science teacher in K-12 liked science. She wasn't terribly thrilled about mathematics, but she liked science. All of my children had a very fine mathematics curriculum in junior high school, in middle school, in Lafayette. There was an outstanding teacher that taught every one of them, and they all appreciated that. So they had a good foundation. Why my daughter Jacinta, who is a mechanical engineer, took engineering, I don't really know. She did very well in mathematics in high school. She took AP mathematics, she took calculus. She went to Stanford in letters and science her first year, and then at the end of the first year came home once and announced, "I'm going to transfer to engineering." [laughs] And I don't think I've ever had a satisfactory explanation from her--maybe I should pose that question to her for the record and find out. But she did that.

My son Kris, who is the professor of electrical engineering, is probably easier to understand. He was interested in science and math from the very beginning. I remember doing a project with him in the sixth grade. He did a science project on rocketry. He built, I think I talked about this, or did I? I don't remember.

LaBerge: I mean, we talked about your involvement with rocketry, but--

Pister: Well, Kris built model rockets.

LaBerge: Oh, yes, it landed--. [laughs] Yes, you did.

Pister: Anyway, that was an example. He just really wanted to know the whole story, how to calculate how high it would go and all that. So I think it was pretty natural for him. But I don't remember ever sitting down and having a fatherly talk about what engineering is or why. I remember when he decided to go into engineering and elected to go to UC San Diego. [laughs] There's an entry, and we keep a log in our mountain cabin. We've done that since the 1960s, and there's an entry somewhere when Kris and I were up there where he said, "Dad and I sat down and he determined my entire program at UC San

Diego of what courses I should take." [laughter] So evidently we did have that discussion after he once determined that he was going to go on. But anyway, that's a bit off the subject, but it's perhaps interesting to somebody.

Affirmative Action at Santa Cruz

Pister: I think that wraps up the Berkeley years up until my return to Berkeley two years ago. I suppose we could move into a few comments about what happened at Santa Cruz and particularly my involvement with the regents in that period. When I went to Santa Cruz as chancellor, I had the benefit of experience with affirmative action at Berkeley in the College of Engineering. So I thought well, I should be able to build on that experience and have no difficulty. What I ran into at Santa Cruz was a much more complex situation than I had anticipated. First of all, as a chancellor, you're one level above where you are as a dean and much less able to work on affirmative action issues on what I'll call a hands-on basis. That was a problem for me from the beginning [laughs] because at Berkeley I was perfectly comfortable with walking into the office that we had the, center office for this activity, and sitting down and talking to the staff people there. They really respected me for doing that, and it worked fine because I wasn't going over anybody's head. But at Santa Cruz I couldn't do that as a chancellor because I would be short-circuiting the line of supervision, and I constantly had to be reminded of that [laughter] by my executive assistant, Billie Greene.

Santa Cruz had, I'd say, a very dedicated group of people in a department called Student Affirmative Action, but a group of people that were very politicized and kind of fixed on old ways of doing things and not looking necessarily at changing situations, and a group that certainly in the beginning was very suspicious of the chancellor, no matter what record I might have had at Berkeley.

LaBerge: And also when you came in you were interim, so maybe they--.

Pister: Yes. As time went on, I think I gained with some and didn't gain with others there. I had a very kind of up and down relationship with that group. We tried very hard to do some reconstitution of the group, but it's very hard to move people and very hard to remove people. It's even harder to remove people than it is to move people, and I was never completely satisfied. On the other hand, I do feel that, and I'll move to this directly, the stand that I took on the regents' action in 1995 certainly made it clear to people there where I stood on affirmative action. Following the regents' action, we had several what I'll call mass meetings on the campus because I was absolutely clear that the symbolic importance of their action was going to be very, very significant on my campus. So I felt I had to get out in front.

And I was pleased that the students held a big mass rally on the campus, and they invited me to speak. That was kind of an unprecedented thing for the chancellor to be invited to speak at a student rally. I remember the students had had a special T-shirt made, something about, "We the people demand affirmative action," and I had one of those and I wore it when I spoke, which was helpful. But on the other hand, there were people sitting back in the grass that were cat-calling the whole time saying, you know, "What

have you done, chancellor?" So you're never going to satisfy everybody, as Lincoln said. I think by the time I left that people felt that yes, I was committed to affirmative action.

LaBerge: Was the situation you faced there different than--like the population for admission different than the one at Berkeley?

Pister: Well, sure. Of course, at Berkeley I had a team of people that actually went out and did recruiting and interviewing and helped with the admissions process. At Santa Cruz they did that too, but to [laughs] give an example, there were recruitment people from the student affirmative action group and recruitment people from the admissions office as well, and they didn't really respect each other, and they didn't work together. Ultimately, that all got fixed when I got a good vice chancellor down there in the person of Francisco Hernandez who came from Berkeley. My last year or two there was much better than the beginning because he being a Chicano, could really deal with this issue much more effectively than I could. So we did fix that recruitment problem ultimately.

LaBerge: Do you want to talk a little bit about what meetings, how the chancellors got together before that regents' action?

Pister: Well, that's the thing that I'd like to turn to now, because I have a whole file on that. The situation with the regents and all, I'd like to put in context by saying that in 1988 the board passed, I think, a very fine resolution. It was in May 1988. The statement of the board was that, "The university seeks to enroll on each of its campuses a student body that beyond meeting the university's eligibility requirements, demonstrates high academic achievement or exceptional personal talent and that encompasses the broad diversity of cultural, racial, geographic and socio-economic backgrounds characteristic of California." So that was a statement of regental policy in May 1988.

LaBerge: Were you on the Academic Council then?

Presentation to Regents on Admissions, 1994

Pister: No. This is just background that--in the academic year 1994 at the urging of Regent Connerly, who had been appointed in 1992, the president's office was asked to make a series of presentations on admissions, on how admissions were done in the University of California. It started with graduate admissions.

[43B]

Pister: The impetus grew out of an admissions case for the UC San Diego medical school, and the party's name was Scott, I believe. The Scott son had been denied admission to medical school at San Diego, and the parents took this on as a cause célèbre. The student subsequently was admitted to medical school at Davis, I think, but that didn't quell their concern. They were friends or at least became friends, I don't remember which, of an influential San Diego regent, Clair Burgener. I think he might even have been chairman of the board at that time, I've forgotten. So that there was some background for this. Walter Massey had become provost and senior vice president, and so it was his

responsibility to do the presentations. It's not entirely clear to me whether it was his unfamiliarity perhaps with the UC system, because he hadn't been in it that long, or what, but--and looking back I can't objectively say that the presentations were not that complete. The contention of Regent Connerly right along was, "Well, I'm asking questions, and I don't get answers, and you're withholding information from me, and you're not being forthright on how you're doing admissions." Whether or not that is really true or not, I can't say.

LaBerge: Were you at those meetings?

Pister: I certainly was at the meetings, but there could have been much more that was asked for and went on that I was unaware of. The single thing I do remember is a presentation at the December 1994 meeting by the dean and an associate dean of the medical school at UC San Francisco on how UC San Francisco medical school did its admissions. Not only how they did it, but there was evidence as to how the students that were admitted as what you might call affirmative action students, how they performed, the whole longitudinal study thing was dealt with, and it was, I thought, a superb presentation.

LaBerge: Who was the dean then? Was it Julius--no, not Julius.

Pister: No, Krevans wasn't dean. The associate dean was, he's now vice president of the university for health sciences, Michael Drake. He made the major presentation. The dean, I think, was Haile Debas, who was acting--

LaBerge: We can look that up.

Pister: Yes. He was acting chancellor following Joe Martin's resignation. He's currently dean of the medical school again. Interestingly enough, Dean Debas is Ethiopian, and Michael Drake is African American, and they made, I thought, outstanding presentations. I shall never forget, following their presentation Regent Connerly said, "It's time to take off the training wheels." In other words, he really disagreed with the presentations, flat out. So that was December of 1994. In the spring of 1995, there were additional presentations, now on undergraduate admissions to the university.

LaBerge: For the record, does each campus have its own system of admissions?

Pister: Each campus has its own process, but essentially the criteria for admissions are universitywide. They're set by BOARS. They're recommended by BOARS to the Academic Council, to the assembly, and then ultimately approved by the board. The operative language is that the Academic Senate sets the conditions for admission upon approval of the board, so that they don't have final authority. There were minor differences in process certainly, and over time, I think, the way in which certain things are weighted, all of those things were subjective to a campus and all, but the basic criteria were fixed for the whole system.

SP-1 and SP-2, July 1995

Pister: As I said there were presentations in the spring of 1995. I found a copy of a letter that was written to the chairman of the board, Howard Leach, and to the president, who was then Jack Peltason. This was June of 1995, and it's from Ward Connerly, and it says, "In view of the fact that the administration's analysis of university affirmative action programs is not yet complete and will be the subject of further presentations at the June regents' meeting," so in other words it's not just the spring, it was the summer already, "I'm deferring my intention to request modification of the university's affirmative action policies to the July meeting. I will propose at the July meeting that the regents direct the president to seek language preserving those outreach programs in any proposal for modification of affirmative action policy." So what he was trying to say there is, even though he was going to remove all reference to gender and race in his policies, he didn't want to get rid of outreach. But--

LaBerge: Later he did. [laughs]

Pister: Well, that's a separate issue.

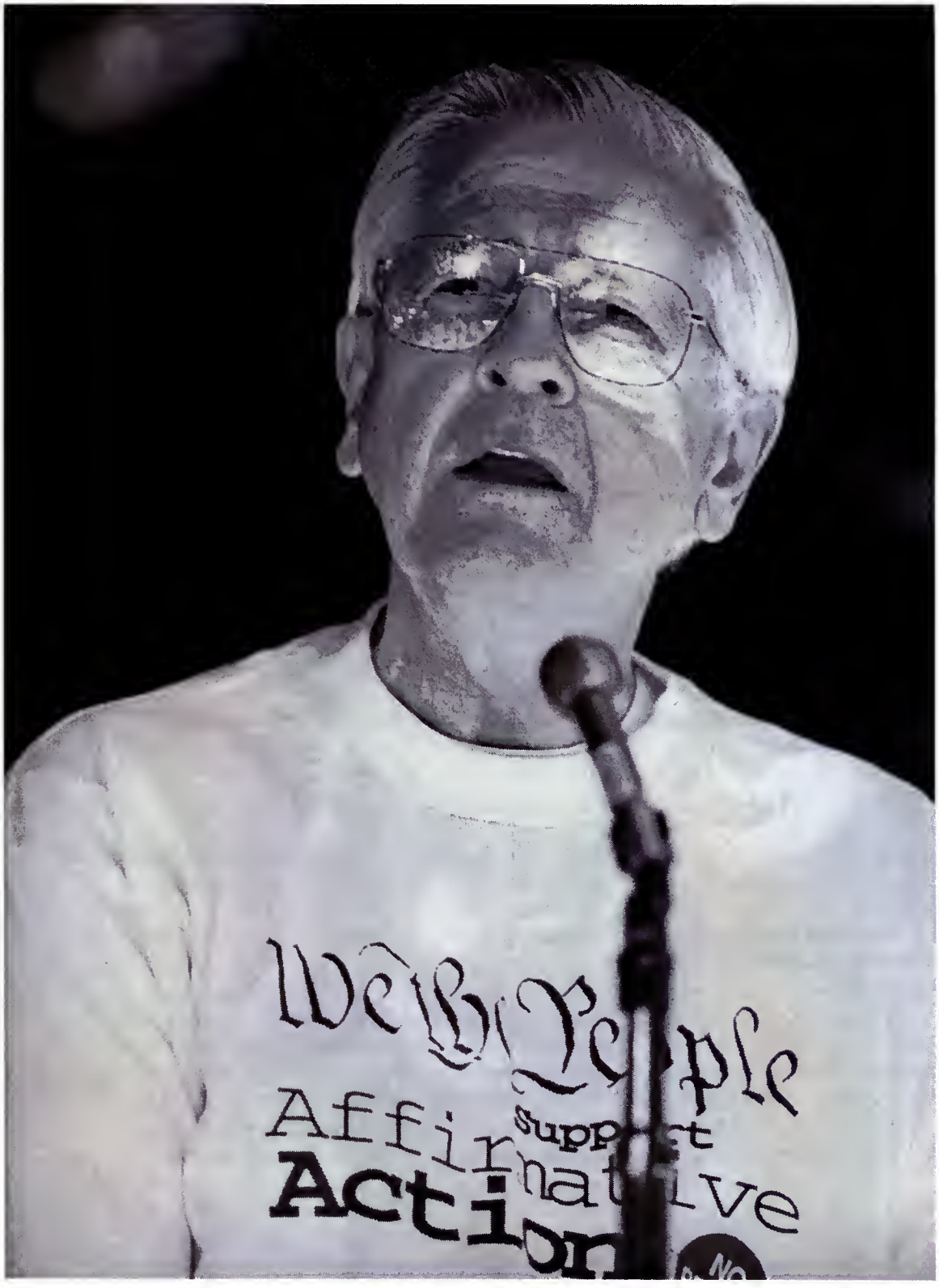
LaBerge: So he gave warning.

Pister: So he gave warning. So appeared the famous, or infamous depending on your perspective, resolutions SP-1 and SP-2: SP-1 had to do with admissions and SP-2 with employment. Those resolutions were presented at the July meeting. But as early as May of 1995 in the file that I found, I've collected a series of comments that were made by my fellow chancellors to a draft that I wrote, the first version of a draft of a statement for the chancellors. Ultimately it was a statement that, after modification of I don't know how many cycles we went through, a statement that ultimately was signed by all the chancellors as well as the president and all of the vice presidents except general counsel, who was a vice president but also counsel to the regents. He felt that he couldn't sign.

LaBerge: So you're the person who started this--

Pister: I wrote the first draft of it, yes. It was called a "Statement of the President, Chancellors and Vice Presidents of the University of California," and it was finally I think agreed upon at the end of June. It was before the July regents' meeting surely. I have a copy of the draft, which was sent to me by Janet Young. It was June 20, 1995, and then on the 22, I sent that draft out to all of the chancellors. It says that, "Attached is the draft that you reviewed last week at the regents' meeting. I've been informed that Jack, as you will note, supports the statement." It was interesting, Jack didn't want the chancellors to do this without his being able to sign it as well. He didn't want to see a split between the chancellors and the president, I think, to his credit. And I said, "I believe that Jack is in the best position to decide the timing for release. I'll leave it to the Office of the President to contact us to gain consensus as to the procedure."

LaBerge: Tell me about any meetings you had, for instance, did you discuss this at your chancellors' meetings?



Chancellor Pister at UCSC Student Rally following July 1995 Regents Meeting

Photo by Coyno

Pister: I'm sure we did. I don't have any recollection of it. I just remember that everyone was absolutely supportive of the idea that we had to say something. We could not remain silent on this because we felt so strongly that it was a serious mistake.

LaBerge: And everybody felt the same way, which is amazing.

Pister: Yes. Yes. And not only the chancellors but the president and the vice presidents. So anyway, that was that.

LaBerge: What did the Santa Cruz campus have to present at the regents' meetings to show how you admit people or--?

Pister: No--UC San Francisco presented the graduate one. I can't remember whether there was a specific campus. It could have been Berkeley, because I remember then at the July regents' meeting when the actual debate took place and the vote was taken for on these things, there was a very sharp exchange between the governor and Chancellor Tien. The governor, I think, at least in, I think properly in Tien's eyes, mischaracterized what Berkeley was doing, and Tien really got upset by that [laughs] and spoke up. So it could've been that Berkeley was asked to explain this process, but generally there were--yes, it would have to have been a campus because the president's office doesn't have a process for admissions, so it must have been Berkeley. On the other hand, Walter Massey and Dennis Galligani who is associate vice president for student matters would have been the presenters. They would present universitywide data about what was happening, but they couldn't talk about process, which was a campus matter.

LaBerge: What--if you can, I mean, you were at that meeting weren't you, when this vote was taken, or not?

Editorial Piece

Pister: Well, before we talk about that, let me mention a couple of other things that I was involved in. In May of '95 while this was going on and while, of course, at the time we knew that Prop. 209 was going to be on the ballot in November, I wrote an opinion piece that was published in the *San Francisco Chronicle,* which I called "Engaging in the Wrong Debate." In a few words, basically the position that I took was that I felt that it was really a misunderstanding or misinterpretation of the intent of affirmative action. Affirmative action, yes, it was directed toward individuals, but it was something that was done not just for the individuals but for society, that the provision of education for individuals not only helped the individual, but indeed paid off in society, in benefits to society.

So the statement "Engaging in the Wrong Debate" had to do with that issue. I said we ought to engage in the real issue, the stability and well-being of our society in the twenty-first century, and not affirmative action. And we ought to look at the tools that are necessary to ensure that we have a stable and successful society in the twenty-first century. I connected it back to the words of Daniel Coit Gilman, his famous inaugural address that is so well known to some of us at least, that the new University of California

had to be adapted to this people, to their public and private schools and their peculiar geographic position, the requirements of their new society and their undeveloped resources. It is of the people and for the people. A wonderful prophetic statement that rings so true today, and I've used it over and over again in talking to people about the mission of the university that it's so important, and indeed that leads me to a statement that I wrote as chancellor at Santa Cruz.

It was entitled, "A Statement on Mission and Diversity." I dusted this off and used it just last week in our meeting with the Academic Senate division leadership here on our committee talking about the importance of putting diversity into our teaching plan. It has to do simply with what I think is a self-evident problem that--and I said, "To fail to include a measure of diversity in setting norms for quality in the pursuit of our mission and to fail to take necessary steps to remain on this course in meeting the challenge facing our university and campus, is to fail in our mission." That you can't say that Berkeley is a successful place, it has a quality, excellent program, if diversity is not part of the measure of that quality. Now, that's a very tough thing for some folks to accept. But I put it very squarely in the middle of our mission as a land grant university, and we haven't ever given up that characterization. We are a land grant university. So, we shall see.

By coincidence, I'm meeting this afternoon with the colleague in physics who's interested in this whole issue and wants to get a National Science Foundation grant to work on dealing with underprepared kids in math and science. He quoted that in talking to somebody at NSF, at least the land grant part. I was pleased that he read that and was interested in it.

So to kind of close that particular part, the Santa Cruz part--. I'll have to recall that after the regents' vote and my presentations on the campus, we had several town halls. I spoke at the students' meeting. Alas, in January of 1996 [laughs], I had to endure a very serious protest where about three hundred students closed both entrances to the campus at Santa Cruz, both the Empire Grade entrance and the main entrance to the campus. Nobody could go or come across the boundaries of the campus, and you can imagine, the buses that brought students up from Santa Cruz had to unload them there. People parked all over other people's property and everything, and so I got blasted in the *Santa Cruz Sentinel* for not dealing with the issue and blasted on the campus. Everybody was mad at the chancellor because of that fracas. We arrested twelve people, I think.

What actually happened was that our police and our student affairs people had talked to the students ahead of time. There was general agreement, they didn't want to shut the campus down. It was just going to be a symbolic protest. But what happened is during--and they were only at the main gate of the campus to begin with--but during the course of that protest in the morning, a group of people from Berkeley [laughter], I can't remember exactly what their name was--it was Affirmative Action at Any Cost.

LaBerge: Cost, yes.

Pister: Yes. You know, a real radical group. They came down and infiltrated the thing and were not satisfied with just a mild protest. They said, "Let's shut the place down," basically. So all it takes is a few skilled people like that in a crowd and you've got mob psychology going, and they shut the place down. So that's my last--

LaBerge: Where were you when this all happened, and tell me the steps of what you did? Were you on campus?

Pister: I was sitting in the chancellor's office.

LaBerge: [laughter] Was your wife home, too?

Pister: Yes.

LaBerge: But home on campus.

Pister: Oh, yes. There was no threat. There were no physical threats or anything like that. The big decision for me sitting there in touch with my people that were right on the spot, the police and my student affairs people, was whether or not--. I said, "We have to break the blockade of the campus. That's it. You can't let this go on." So we had our people trying to negotiate with the students to okay at a certain hour--I can't remember when it was--"We're going to have to ask you to leave. We have to open the place up." So that was the deal. That hour came, and many of the people did leave, but some didn't. So the police went in and arrested twelve people. That was the decision to make. Are we going to carry through with this decision to arrest people or not? When you do that, you start a process that--the thing that we learned down there, that I learned--thanks to our police, I think--is that there was a provision in the law that enabled you to arrest people and charge them with something that would discipline them but could not lead to a court appearance, to a trial by jury--because nobody wanted anybody to arrest people and have a trial by jury because of the complication and the prolongation of the whole thing and making martyrs out of people, not to mention the expense of it all. So I don't remember what the provision in the law is [laughs] that enabled you to do that but--

LaBerge: And what they were charged with was public nuisance--?

Pister: Yes, something like that that you could get them, and they just had to appear, and that's it. Probably--I don't remember, I left before those students were finally sentenced I think. I don't know what happened to them actually. Of course, once you arrest people, then the next step is pressure on you to drop the charges. Then there's another protest to the chancellor, "Well, you arrested them, but they're just exercising civil disobedience." You have to drop the charges. Our position on that was always, if you want to exercise civil disobedience, it doesn't have any meaning if you aren't willing to accept the consequences of it. It's a logical position, but it doesn't influence people. [laughs]

LaBerge: No, no.

Pister: Anyway, so I think that wraps up that phase of my affirmative action diversity life.

Exchange with Regent Ward Connerly

LaBerge: Didn't you have some exchange with Ward Connerly?

Pister: Oh, yes, I forgot about that.

LaBerge: How could you forget? [laughter]

Pister: Thank you. It would've been after Prop. 209 probably. So it would have been in the fall of '95 or the winter of '96. I guess it would've been in that period. I wrote an article in our campus alumni magazine, and in that article I expressed my disappointment with the regents' action and said that I felt at the time it was wrong, I continued to feel it was a wrong decision on their part, and I probably stated my reasons. But then I said, "However we have to be guided by their position on this." I suppose I should have used stronger language like, "We must obey," or "We must--." [laughter] I don't know what would've been better--. Well, my intention in saying we must be guided by their decision was that I have to follow their policy. I can't say I'm going to ignore their prohibition against using race and gender in admissions decisions or employment decisions. We have to be guided by them. And I probably also in the article said that there's still a presidential--that is the President of the United States--executive order, that requires our observance of certain protocols involving research and employment of people. It wouldn't affect admission, but the SP-2 resolution had to do with employment. A simple way of saying it was that University of California, post-SP-1 and 2, even post-209, is an affirmative action employer. But that simply has to do with the creation of the pool. You have to show that you exercise due diligence in creating the pool, and I'm sure I must have mentioned that. I haven't put my hands on the actual statement.

Well, whatever I said didn't go down well with Regent Connerly, and he wrote a letter to Jack, the president, saying that Chancellor Pister was insubordinate in what he had written. Well, fortunately the president I think sent me a copy of the letter or maybe Connerly sent me a copy of the letter, I don't remember which. I didn't appreciate that characterization, and I think--the president did nothing to me or didn't even say anything to me about it. Last weekend when I was with Jack [laughter] I reminded him of that letter. We had a laugh over that. I remember at some subsequent regents' meeting, in the men's room--[chuckling]

LaBerge: Where important things happen. [laughter]

Pister: Where important things happen. I remember remarking to Regent Connerly, I said to him, "You know, Ward, with respect to your characterization," I said, "I am a naval reserve officer, and I have a very clear understanding of insubordination, and it involves directly disobeying an order, and I don't think I did that." And that was the end of that.

More on the Vote of the Regents

LaBerge: Would you like to give your reflections on the governor's part in all of this?

Pister: Yes. That day was a very, very tragic day, and it affected me and affected most of my colleagues deeply. I remember some staff people and some others sitting there who actually wept as a result of that vote. It was--the whole morning leading up to it was a giant circus. We had one after the other, speakers coming in speaking. Jesse Jackson

came to speak. It was supposed to be a three-minute speech, and I think Jesse spoke for forty minutes. The regents, whoever was the chair, probably felt that there would have been a riot if they'd tried to cut off Jesse Jackson. I think Willie Brown came to the meeting. There were really very good statements made. But at that point the whole thing was already preordained, because whether or not anybody will admit it or not, the governor knew he had the votes lined up. There's no question about that.

An amusing, but sad, reflection of what I would say the highly political nature of this whole issue was that some time during the morning, in the hallway behind the auditorium where the meeting was held, where usually you go out to decompress to get away from the meeting, Wayne Kennedy, who was in charge of the logistics for the meeting--he was vice president with Jack--was outside there. And somebody from the governor's staff came racing up and grabbed him and said, "Kennedy, you've got to move this along faster. The governor's going to lose primetime television." And Kennedy just about slugged him, as I remember. [laughs] It was a very tense exchange, because Kennedy had no control over what was going on. The other thing I remember, of course, is that at a certain point the meeting was disrupted, so the chairman adjourned the meeting and they emptied the place, but we reconvened upstairs in another room to finish the meeting.

LaBerge: With a smaller group or without the public?

Pister: Without the public. We met without the public. It must have happened after the vote was taken that all hell broke loose, so to speak. And that's when we had to move upstairs. But that was an important move because there was essentially--and I'd have to--I didn't review this, Germaine. But there was, in addition to SP-1 and SP-2, there was a codicil of some kind that the regents tacked on to their action that basically affirmed the importance of diversity in the University of California. It affirmed the importance of providing access to all people of California to the university. We'd have to look that up to remember whether that was attached to these two or whether it was a separate action. But I remember there was a lot of debate about what that could say, and there was kind of a tension between the people supporting Connerly and the others--

[44A]

Creation of Task Force on Outreach

Pister: This supplement to the action that was taken, which was largely seen by many as a very negative action in the life of the university, was very important. Putting this thing at the end was the first step, I believe, to the regents' subsequent action which was the appointment of a regental task force on outreach.

LaBerge: Is this the one that you were on, or--?

Pister: No. I was involved with it, and we'll come to that. But the regents agreed that well, if we stop affirmative action, if we believe in diversity, then we can hardly sit still without saying what alternative devices or methods, procedures can we put in place that will address diversity, that are consonant with our action SP-1 and SP-2. So they said, "Ah,

we'll create a task force to recommend that." So subsequently then--I don't remember how long it took--a task force was created representative of people from the university and outside the university, from business and industry. In fact, the co-chairman was Dick Clark, former president of PG & E. And Jud King was the co-chair.

LaBerge: What was his position then?

Pister: He was provost.

LaBerge: He was provost then, okay.

Pister: And senior vice president, academic affairs, yes. See, this was now in probably the fall of '96 or it could even have been later. I don't remember how fast that task force was created. We'd have to look that up. But anyway, that was the only--I'd say the only positive outcome of that whole thing, the creation of this task force on outreach.

LaBerge: Would you like to characterize any of the regents besides Ward Connerly's activities or whether they were voting their conscience, or how they were being encouraged?

Pister: Well, the ones that I remember are two, the two Bs. Roy Brophy, Roy felt very strongly--even though Roy was a Republican appointee, Roy had a lot of experience. He'd been on the California State University board. He was a long-time UC regent. He'd been on the community college board, and he was just generally a very decent guy. Roy felt so strongly about this that he [laughs] actually asked for three minutes and came out and spoke as a citizen on this issue. Bill Bagley, another Republican, interestingly enough, felt very strongly about this issue and broke with the governor on this. As I remember, we'd have to check this, I think Bill abstained because there was some technicality, if you abstain, you're put in some favorable position to reintroduce the issue. There was something like that.

LaBerge: Because he since has--

Pister: Yes. Well, of course, it's been overturned now, finally. But Bill's a lawyer, so he had some elaborate scheme [laughs] for taking the position that he did. I don't remember really, the vote was very predictable in terms of the Wilson appointees. There was another, I think, very difficult decision, one of the regents suffered mightily on this, that was Tom Sayles. Tom is an African American, again, a Republican appointee, a lawyer, a very fine gentleman who I think was fairly torn by this whole thing. He disagreed with Connerly on the position he was taking. I don't remember any of the others.

But all I remember is that after the meeting, a reporter from the *Los Angeles Times* asked me about it. I said this was essentially the worst day of my life in the University of California as far as I was concerned, and I felt like somebody had kicked me in the stomach. And I think that was the expression I used.

Retirement from UC Santa Cruz

Pister: Okay. Well, I think that kind of wraps up that period of history for me. But what I'd like to move onto next concerns what happens after I left Santa Cruz. Does that work?

LaBerge: It works. Should we set the scene of what you planned to do?

Pister: Yes, well--

LaBerge: How you planned to retire again.

Pister: In the spring--no, it would actually have been the fall of 1995, I had already indicated that I planned to retire in July of '96. But in the fall of '95 when Jack Peltason retired and Dick Atkinson came in as president, there was a brief moment when I was torn between staying at Santa Cruz and going with Dick. Dick called me one day and said, "Well, I know you're going to retire, but would you come down to Oakland and be vice president for academic affairs?" That was before Jud King. Jud was associate vice president or associate provost for research, and Walter Massey had left some time before, and I'm trying to think, Murray Schwartz was the acting vice president. But anyway, Dick asked me, would I do it? I said, "Dick, I don't want to come, leave Santa Cruz. That would be a real problem for them, and I feel too much loyalty to Santa Cruz to do that," even though I certainly was honored that he asked me to come down, to help him make the transition. He made it clear, since I was going to retire, he wasn't going to appoint me as vice president, but just as an interim thing. So I didn't do that. But I did say that, "Look, when I retire from Santa Cruz, I would be happy to help you in any way that you'd like me to."

LaBerge: That was a mistake. [laughter]

Pister: Well--no. So I remember in the last week of June when the Santa Cruz folks gave Rita and me a going away party down in the Coconut Grove on the boardwalk, wonderful evening it was although Rita fell off of the raised platform on which we were sitting for dinner. We were on a table raised up in the front, and she stepped back some way and fell backwards off the thing, and I didn't even know she fell. She was calling for me, and somebody else had to haul her up. I was--

LaBerge: Did she break anything?

Pister: No, fortunately she was uninjured. Thank God for that. But anyway, I was really honored by the fact that David Gardner came, Angus Taylor and, of course, Dick Atkinson was at the head table. I still remember Dick's remarks, at some point during his remarks he said, "But Karl's not going to leave the university. He's going to come and work with me." So that was a public announcement. I had no idea what that was going to involve. I told Dick that night, I said, "Well, I'll see you in September. I'm not going to come in the summer. I'm going to take the summer off." So I showed up some time in early September.

Therein lies a story too [laughs] because I worked all during September. Then some time in October, Janet Young, who was my contact with the president at that point--she was his executive assistant more or less--she said, "Gee, Karl, I'm sorry, but we can't pay you

until the first of October because when you retire you have to have a three-month period before you can be hired again."

LaBerge: That's right. That's right.

Pister: So, alas, I worked for free, but--.

LaBerge: For free. Well, do you want to talk about your move back? On one of your lists you have something about the move back to Lafayette. Is that a story there or is it just--?

Appointment at UCOP to Implement Task Force Findings

Pister: Well, I think we can talk about that in a different context. What I ought to do here now is talk just about the diversity part of it.

LaBerge: That makes sense; that makes perfect sense.

Pister: Is that alright? Because apart from what I was doing or what I wasn't doing, I became re-engaged with the diversity issue very soon after I got back, after I came to the president's office. It happened by virtue of the fact that the task force report, the outreach task force report was being finalized, and I was asked to start to attend the task force meetings as an observer, a consultant, I think I was called in the final report. I was not a member of the task force, but I was a consultant to the task force. So I sat in on the meetings and right away, of course, started to criticize or to support different positions that were taken in the task force report. So I had a modest, although late impact, on the task force report. I had no idea, of course, what was going to happen downstream and ultimately we'll come to that. But it's one of those things where you're sitting watching something happen with no understanding or appreciation of how you're going to be involved in it subsequently. It's an interesting retrospective, just thought about that.

LaBerge: Who else on the task force besides Dick Clark that you recall?

Pister: Golly, there were people from outside the university as I said and people inside the university. Well, Gene Garcia from Berkeley, I think Francisco Hernandez, Sonia Hernandez from the California Department of Education, some very good people were on it. I'll talk about that more when we come to that point in history. So the task force report was finally completed. What happened next really was that in--I'm looking at my notes here to get this straight. [looking at notes] Okay, yes. The task force report was approved by the board in regental action I think in November '97. So that would have meant, yes, the fall of '96 and the spring of '97, I would've been engaged in attending meetings of the task force. Their report was finalized I think in July of '97, and the board approved it at the November of '97 meeting.

School-University Partnerships

Pister: The task force had four main areas of programmatic impact. They were long and short-term and mid-term kinds of actions, but the recommendations had to do with what were called student-centered programs like MESA and Puente that were focused primarily on individuals or groups of individuals. School-university partnerships was a new creation. That was a mandate that each one of our campuses create partnerships with five surrounding high schools and their feeder schools to create a systemic approach to the preparation of students for UC. There were two other areas, but let me just leave those two right now because those are ones that have the most impact right now.

The school-university partnership area was a responsibility that was handed to me by Provost King. I shared that with my colleague Bob Polkinghorn, who is now an assistant vice president in the Office of the President. I had known Bob more or less casually up to that time, but this brought us together. Bob was a very experienced staff person. He was finishing his doctorate at Stanford in education, and a wonderful guy. From the beginning we got along very well. So Bob and I had that job, and we were a part of a small group whose name I can't remember now of people involved in implementing this outreach program of the regents.

By the way, in the '97-'98 budget year, Governor Wilson put money into the budget as I remember. No, wait. That's would've been the '98-'99 year. So '97-'98 year there wouldn't have been any money yet. But we were organizing to do this. And Jud King chaired this little group of people that were implementing the regents' task force report. Well, I think partly because the provost had so much to do and partly just because of the complexity of the job of being president and all, there was a feeling I think inside the university, the Office of the President, by staff and certainly a feeling on the part of some people away from the president's office that in spite of this task force report being published, nothing much was going on, that things weren't moving.

In particular there was a feeling on the part of one of the president's former students, a guy named Mike Cole, who is now a university professor, I might add. Mike Cole was at UC San Diego, so he knew Dick from way back, but he'd been a student earlier. I got to know Mike because he was the father of a program called UC Links, which was a really fine after school outreach program that was computer-based in our public schools. So Mike and I were already acquainted. Well, Mike was very frustrated. He didn't think he was getting enough resources, and things weren't moving enough. I'm told, this was all secondhand that Mike called up the president any time he felt like it. He called up the president one morning, early in the morning, and basically told him, "You know, Dick, nobody believes that you have any commitment to diversity, and you'd better do something about that because you're really in trouble. You're in trouble about that."

So [laughter], the consequence of that was that the president called me and Jud King into his office some time in December of '97 and said to me, "I'm going to put you in charge of implementing the regents' task force report." And Jud up to that time had had that responsibility. He hadn't talked to Jud ahead of time, he just said, "Karl, you're going to do that. You can work with Jud on that, but it's your responsibility to do that." So then he made a big announcement at the January '98 regents' meeting, that Chancellor Emeritus Pister is going to be responsible for this. It was a new start for him. It gave him some new

political leverage to place me in charge. And I might add, when that happened at the regents' meeting, I think [laughs] sort of the first time in my experience, the regents applauded [laughter], applauded at something involving a chancellor. Normally they were reluctant to applaud anybody.

LaBerge: Including Ward Connerly? [laughter]

Pister: I don't remember whether Mr. Connerly clapped or not. But anyway, they were really pleased that I was coming back--well, they already knew I was back, but I had played pretty much of a minor role. I was called senior associate to the president, but I didn't have any line responsibility, but that began to develop once I was given this responsibility. Governor Wilson put thirty-two million dollars of new money into outreach in his last budget. So that gave me a new responsibility and opportunity. So not only did I have the school-university partnerships, but I had the whole ball of wax, so to speak, on the regents' task force. That involved graduate outreach, undergraduate outreach, the school-university partnership part, the individual, the student-centered programs like MESA and Puente, the whole thing.

LaBerge: I remember that you gave a talk up in the Stone Room. I mean, it was sort of a discussion really. Maybe you didn't give a talk, but you were there. There was a discussion on, it was a discussion on outreach, and Jack Peltason was there, and you were there, and that wonderful professor who died prematurely, Jenny [Franchot]--

Pister: Oh, yes. Yes, I think that was Jack Peltason's thing.

LaBerge: Maybe it was his talk. But I think it was on that subject.

Pister: Could well have been, yes. I gave a talk much later on over in the Townsend Center on the new land grant mission. I remember Clark [Kerr] attended that, as a matter of fact. I was very pleased that he was there. So anyway, that was the big step. At least once and sometimes twice a year, I made presentations to the board on the status of our outreach efforts. They were fairly elaborate presentations that would last thirty or forty minutes, which is a long presentation to the board, as their attention span is much shorter than that normally. But this is something that they were very interested in, and I must say that the reaction that I got from the board after I was given this responsibility and the statements that I made were always very well received by the board, at the beginning at least they were. I remember Regent [Howard] Leach saying, "Well, this is what we should have been doing all along. Now we're really beginning to engage the issue at the grassroots where it needs to be engaged." We weren't using affirmative action. We were engaging K-12 in the hope that we could improve access for all students.

Vice President for University Outreach

Pister: The other major milestone that happened was that when I told Dick in--this would have been the fall of 1999--that I wanted to retire, resign in this case, since I'd retired already, I was going to resign from the job in July of 2000. He essentially on the spot said, "Okay, I'm going to create a vice presidency"--now that he knew I was going [laughter]--"and I

want you to be vice president for educational outreach." So that was October 11, 1999, that he appointed me vice president for educational outreach. And [laughs], by the way, none of these things ever had any paperwork. I mean, there's nothing in the record anywhere, as far as I know, that appointed me vice president for educational outreach.

LaBerge: It was just word of mouth, and--[laughs].

Pister: Yes. I got new business cards. [laughter] At my suggestion I got the proper automobile allowance since I was a vice president now. I didn't have any change in office or anything like that to be sure. And I was introduced as a vice president and not a senior associate anymore. There are lots of details about life in the president's office I think I'll reserve--

LaBerge: For another time.

Pister: Sure. For when we talk about that whole transition. The outreach part of it, I think, is pretty well covered by what I've said.

LaBerge: Any more details about what exactly you did once you got this job?

Pister: Yes. There are a couple of things I can go back and pick up. I mentioned I was involved as a consultant to the regents' task force on outreach when they were forming the report. Well, once I became vice president, then I was put in the unusual position of having that task force, which was retained as an advisory body, and they were advisory to me. My exercise of this responsibility was complicated by the fact that the task force report drafting was done under Associate Vice President Dennis Galligani. His staff really did the drafting work. So that Dick Clark, who was the co-chair of the task force, always looked to Dennis as the person that he had to work with on task force matters. I don't think Dick ever made the adjustment to the fact that Dennis really reported to me on this now. [laughs] And that if he had concerns about what we were doing, he should bring them directly to me. I don't think until the day I left that he ever called me directly on issues. Not that I was offended--one less person that I had to deal with, but it was an awkward thing.

Not to mention the fact that Mr. Clark, an extremely well-intentioned Berkeley alum from the Boalt Hall Law School and very supportive of what we were doing, had a very fixed idea about how the outreach program ought to work. His view of the structure of the relationship with schools, particularly, was one that we didn't share. There was never a successful, what do you call it, *rapprochement* [laughter] on that particular matter.

LaBerge: Now, do you want to go into that, what your view was?

Pister: Well, he had a certain vision about how the partnership ought to be structured, and if you didn't fit that definition of his partnership, you didn't have a partnership. I think understandably, if you are at all conversant with University of California culture, you know that it's almost impossible to say in any matter at all that there's only one way to do it, and if you don't do it that way, you're not doing it. So we had that. And we had a range of manifestations of partnerships in the university that I was proud of, and they worked for the campus and the group that was working on it. And that was that, so--.

So the only time we ever really made Dick waver a bit on that particular matter was when we took him along on a visit to UC Irvine. We spent the entire day in the Santa Ana Unified School District, starting with a meeting with the superintendent and some of his senior administrators--

[44B]

Pister: --and we visited an elementary school, we visited a high school. By that I mean we really walked it and went in the classrooms, and I had a chance to read a story to a second grade class of predominantly Mexican-American children, well-behaved, bright-eyed little guys. Anyway, for Dick, this was an example of a partnership. It was a partnership with a district, and our rubric was well, you had to have partnerships with schools and not a district. So Dick saw maybe there is another way to do this, because he was so impressed. The fact that the superintendent spoke to us first, and we went to a high school and an elementary school, really showed how UC Irvine was working with an entire school district. It wasn't quite the model that the task force had said you should set up. So his sense of that was conditioned a bit by that visit. But that's about it.

Let me see what else. I notice in looking back in my file here during that summer before or while I was making the transition in the president's office, I got involved in a couple of things. I spoke to a conference in August of 1996. It's the University of California Equal Employment Opportunity and Affirmative Action administrators' conference. That was here in Oakland, and it was a conference that had to do with diversity through equal opportunity, "A Positive Approach to the Future." I gave one of the, I guess the keynote address to that, and I called it, "Looking Ahead while Walking Backwards on the Road to Equal Opportunity." I basically went over the points that I talked about a lot over the years, the unmistakable signs that we were failing a huge portion of our kids in California, and we hadn't really seriously confronted that issue.

LaBerge: Some of these papers we should remember if we want to put them in the appendix.

Pister: Yes, we'll have to make a decision some time on that because you don't want *that* many. [laughter] If you like I've got a lot of them. I also had an interesting experience in September of '96. This was after I started in the president's office, even though not on the payroll. The Davis campus had a forum on the Civil Rights Initiative, Prop. 209, and I was asked to make a presentation at that forum. The forum, obviously, given what it was about on a campus, had to show both sides of an issue. And of course, my position on that would have been well known, and again I tried to explain that affirmative action was for the society and not just for the individual. And I mentioned that, because a lot of people objected to affirmative action being directed toward groups, and it shouldn't be, and we don't give groups any special status in our culture, in our Constitution. But I pointed to the fact that the G.I. Bill was a marvelous example where a group of people was advantaged over others by virtue of what they had gone through, and I felt that there was a strong analogy there. The investment in the G.I. Bill was so successful that it suggested that another investment like that would be worthwhile.

The thing I remember about this meeting was the presentation by the opposition, pro-209. And it was in the person of an assemblyman from the third district in California, northern California, Bernie Richter. I had almost forgotten about him and I had to look up his name here to remember him. Bernie Richter was *really* far out on the right, and he just

launched into a tirade of why affirmative action was evil and why his position was the only sensible position in California. Then later on I took part in a regional conference here at Berkeley at the request of Dean Gene Garcia from the School of Education. This had to do with the importance of creating new partnerships, the thing I then had responsibility for, why it was important for the campuses to get involved in these new kinds of partnerships.

LaBerge: And did you engage the education departments at all the campuses? Was that part of the--

Pister: In my capacity in the president's office, yes, I got involved with the deans of schools of education, and I attended some of their meetings over the years to try to encourage them to be involved in outreach efforts and particularly once we began to see the unfolding crisis in the K-12 teaching force in California too. This was a step which ultimately led to a big jump later on in the last year I was at the president's office in implementing the governor's legislation on creating what were called Principals' Leadership Institutes at Berkeley and UCLA and creating or taking steps to double the number of credentials granted by the University of California.

LaBerge: I remember at one of those noon time meetings that we went to in the past few months, that was brought up and you mentioned that you had to ram it down people's throats.

Pister: Yes, that's when Dave Pearson spoke at the center. Yes. Well, I don't know whether we should talk about that here or--

LaBerge: Or later.

Pister: We should make a note of that because that's appropriate to the discussion of life in the president's office.

The New Land Grant Mission

LaBerge: In the Office of the President. Okay, that's good. Also we're kind of winding down.

Pister: Yes. I want to be sure I cover everything that I had hoped I could cover today in the diversity area. One of the last things that I did was, before leaving the president's office, was to take part in a conference in Long Beach on K-12 or K-18, I should say, because it was postsecondary education in California. It was put on by--oh boy, now I'm going to forget. But anyway, I made one of the keynote addresses there. The address was rewritten as a paper that I wrote with two colleagues, one here at Berkeley and one at the president's office, on the new land grant mission. This kind of really brought together and sharpened a whole lot of perspectives that I had gained during essentially the last twenty years of my life in the university, starting with the time I was dean through the time I was chancellor and the time I was in the president's office.

It built on an idea that I first learned about from Clark Kerr who as early as 1968, talked about a new entity called an "urban grant university." Clark's idea was to reconstitute the land grant idea, but rather than having it focused on development of industry and

agriculture and the mechanic arts, (engineering), to think of putting a university in the middle of a city and have it focused on the problems of the city. He gave that talk at a Phi Beta Kappa lecture in New York. I can't remember which university it was. I used that idea, but modified it somewhat to talk about the new land grant university in the sense that I felt that the old model exploited natural resources, and the new model had to exploit human resources, and that connected to the diversity issue for California. I had an opinion piece that explained this published in the *San Diego Union Tribune* in 1998, I guess it was in March '98, and then subsequently a paper written in *Change* magazine.

LaBerge: Who did you write the one article with?

Center for the Future of Teaching and Learning

Pister: The Berkeley person was David Greenbaum, who heads the interactive university project here, and Leann Parker, who was a member of my staff in the president's office. An epilogue to all this is having left the university, I've already mentioned, as an employee, I'm back in the middle of this as a member of the Status of Women and Ethnic Minorities Committee of the Berkeley division. But perhaps the thing that predates that is that while I was in the president's office still, I was asked to be a co-chairman of a task force of a group which is a part of an entity called the Center for the Future of Teaching and Learning.

That center, which is headquartered in Santa Cruz, is a nonprofit that's funded by a number of foundations. And its whole purpose was to put together a very widely representative, broadly constituted group of people interested in K-12 education and particularly focused on the crisis in the California K-12 teaching force. By virtue of what I was doing in outreach, my associate Bob Polkinghorn, who was already well connected with this problem, suggested that I be asked to be a co-chairman. So that meant that on a fairly regular basis, I was in touch with a lot of people including a research group at the Stanford Research Institute, who did the actual research underlying the reports that were issued. The task force was a sounding board for reports that were produced by the center, reports that were intended to influence educational policy in the state capitol. We've done three of these annual reports on the status of the K-12 teaching profession, in addition to having a Harris poll conducted in California to get a sense of public opinion about K-12 teaching in the state.

I'm pleased to say that this effort has been very well received in Sacramento. The first report really was very helpful in giving the governor's staff direction for some initiatives that the governor was able to fund. It's basically a gadfly for the K-12 teaching force in California, the problem of quality and quantity of K-12 teachers. So I continue to be active in this area, which is absolutely critically connected to the diversity issue in California, because the quality of teaching in schools which are attended by minority kids is generally substantially lower than it is in other districts.

I also was asked by the James Irvine Foundation about a year and a half ago to work with them to follow up on a conference, a symposium that was put together in December of 1999. It was a conference at Stanford that was attended by the presidents and chancellors

from the postsecondary institutions that credentialed teachers in California. They adopted a set of resolutions focused on how to improve the quality and quantity of the teaching force in California. I was asked by the Irvine Foundation to essentially follow up on that conference, to try to continue to hold the chief executives to the resolutions that they adopted. This work is done through this center that I've mentioned, the Center for the Future of Teaching and Learning. So that's been an interesting experience, to be involved with this group.

As a consequence of that I've been asked to serve on an advisory board for a group called the Alliance for K-18 Partnerships in California. This is headquartered at CSU Long Beach, and its purpose is to gain information about postsecondary K-12 partnerships in the state and to try to get a sense of what's working, what isn't working, and to basically support this kind of an endeavor in our educational system.

I mentioned these things in this so-called epilogue just to emphasize that the root cause of inequality in access to education, the root causes I should say, are complex. But a major factor has to be the quality of teaching of children that are coming from backgrounds that make them educationally disadvantaged. Either they're poor or their culture doesn't understand education, their parents are indifferent to education; that's less often the case than is normally, publicly thought to be true. Very often it's a question of the stability in the home in which children reside. All of these things are very much tied up with the fact that the classrooms and the teaching in the classrooms for many of these children is less than satisfactory, and that leads to the need for the university to reach down to try to help to bring kids out of that environment. It's a very complex issue and our society, our political system doesn't deal with it adequately.

LaBerge: It strikes me about how we started with you talking about your parents as teachers and that being such a commitment, that your life has kind of come full circle in that way.

Pister: Absolutely, yes. But it's maddening, Germaine, too. At times I just feel it's hopeless. I don't know where our society will go, because there's such incredible indifference to the daily experiences of so many little kids in this state. It's frightening really. Not that we're the only place in the world where this happens, surely. But with the wealth that this nation has, the wealth that this state has, it's unconscionable in my view. Interestingly enough, I was talking yesterday with a young man that I knew as a high school student. He was a son of a teacher in our Lafayette schools, that taught all of our children, a wonderful woman in her own right. I taught this young man in the high school of religion at our church. We had sessions during the summer, a wonderful guy. He went to Stanford and ultimately went to medical school, and he's a practicing physician in Marin. He has been now for quite a few years. He graduated back in the sixties. He was telling me about his most recent experience. He's made three trips to Cuba as part of humanitarian aid to Cuba, but he said, "You know, the Cubans don't need my medical training. They need the medicines that we can bring them." So he's part of a group of doctors that bring medical supplies to Cuba. It's incredible, and it shows the complexity of what we're dealing with. Cuba has a better physician-patient ratio than we do.

LaBerge: Unbelievable.

Pister: Every Cuban has access to health care. Not only that, the Cuban government offers, I've forgotten, something, it's several hundred, two hundred, five hundred--I don't remember

the number now, it's one of those two numbers--fully paid scholarship to students from Third World countries to come to their medical schools and get educated on the condition that they go back to their countries and practice in their countries. And he said, including a couple of students from Harlem, from the United States, that are going to medical school--

LaBerge: Considered Third World countries. Wow.

Pister: Yes. Yes. It just, oh gosh. It's so sad.

LaBerge: Yes.

Retirement Plans at the University

[Interview 23: May 24, 2002] ## [45A]

LaBerge: Well, we were going to start with the summer of '96 and the transition from Santa Cruz back to Lafayette and to the Office of the President, but you had something else you wanted to add.

Pister: One of the things, when I finally decided to retire in 1996, there was a very kind of vexing situation surrounding my benefits when I retired. I had earlier planned to retire in 1995, and then President Peltason had said, "Well, would you stay on a little longer at least until the fall when I leave?" I agreed to, and then alas, there was a change in the Internal Revenue Code that I became aware of, that I had not known beforehand, that really fairly significantly affected my retirement benefits from the university. It was an Internal Revenue Code cap on retirement plans in the public domain, oddly enough. So I was not encouraged by that [laughs], and I remember talking to the new president, Dick Atkinson, about it and mentioning what had happened. So he said, "Well, we certainly don't want that to happen. You ought to at least get what you were entitled to, had you retired previously if you're going to stay on for another year." So there was a long, drawn out business--I think Wayne Kennedy had people working on this. They had outside tax and legal people working on this, trying to figure out what they could do. Ultimately, I guess, there was a scheme devised that would allow me to receive some supplemental compensation from the board that was legal to pay, that would make up for that difference. It would ultimately phase out when this cap, which was adjusted each year, brought me up to what I would get under the new plan.

LaBerge: Were you the only one affected or were there other people?

Pister: No, it turned out there were more than a hundred people affected, but I was the only one retiring right then [laughs]. Most all of the senior officers in the university were in that position. So they had to prepare a special regents' item for me, which, of course, had to be discussed in my absence, and fortunately--I can't remember when this happened--it didn't happen until just practically the last moment before I retired, because the board had the item and approved it fortunately. I have no idea what kind of discussion went on, and no one ever told me anything about that. Anyway, so that was done. Subsequently, in fact

UCSC Chancellors, October 1992: (left to right) Angus Taylor, Dean McHenry, Karl Pister, Bob Sinsheimer, Mark Christensen

Photo by Victor Schiffrin

within the next year, there was worked out a plan that covered everyone in my category. So I was kind of the prototype for the whole thing. I have no idea whether I got a better deal or a worse deal. [laughs] That was rather an annoying thing and it took, I think, finally Jim Holst was the one that said, "Well, we've got to get this finished. You're practically retired, and this hasn't been worked out." He helped to move the thing along.

LaBerge: You know something on retirement we did not talk about were the VERIP. You had something to do with at Santa Cruz with--wasn't there some exchange about VERIPs or you had a different view than, for instance, Chancellor Tien, or--?

Pister: Oh, well, first of all, I almost took the first VERIP.

LaBerge: In 1991.

Pister: In, yes, 1991. I was just one signature away from taking it [laughs]. I had gone through all the paperwork and attended the briefings and all that. Well, when VERIP III came around, the Council of Chancellors--Jack Peltason was president then--discussed this at some length, and for reasons that are not entirely clear to me--well, it had to do with, I think there was an eight-year what shall I call it, incentive--

LaBerge: Yes, that they added eight years to their--

Pister: The eight years could be a combination of age or years of service. I don't remember the technical details anymore, but the plan that was originally proposed put it one way, and I think eight of the chancellors were okay with that. But Chancellor Tien was very much agitated by it because he said if it were done that way, that he'd lose too many senior faculty at Berkeley. So even though there was a division among the chancellors--well, it was really between, because there were eight on one side [laughter] and one on the other. The president, I believe, talked with Tien privately and indeed ultimately allowed some flexibility. Each campus could decide how to break up the eight years. But for some reason Tien either didn't understand this, although I can't believe that, but he chose to make this a public issue and alleged that he threatened to resign if he didn't get this flexibility, and Jack Peltason talks about this in his oral history. And Clark Kerr even refers to it in his history and really presents, I think, a very inaccurate view of what happened, and I've told Clark that.

LaBerge: That's why I thought we should have your view.

Pister: Yes. I told Clark that, that I felt he had one side of the issue, and it was very different from what I remembered and what President Peltason remembered in his own oral history. It's not a big deal now because it did work out, although Berkeley did lose, even though they were permitted to have a different breakdown of the eight years, they did lose a significant number of faculty. My own Department of Civil Engineering, I think, lost 26 percent of its faculty from that VERIP. So that was certainly an issue, and I guess that was the '95, '96 year, I don't remember when exactly, when that was.

Well, so we'd made the decision to retire. I made that public at Santa Cruz in October of 1995. I still remember the fall meeting of the Santa Cruz division when, after giving kind of a typical state of the campus talk that I always gave, I said, "And now I come to a very difficult point." I had a speech prepared to say how much I'd appreciated the support of

the faculty and all. Both Rita and I felt very warm towards so many people and about the reception that we received at Santa Cruz, but I felt it was time to move on to another life, so--. And I received a lot of support from the faculty at that time, and then ultimately the last senate meeting of the year, the spring meeting, which was my last appearance as a chancellor there, the division chairman whose name was Michael Cowan read a very nice supportive speech, very laudatory, and I seem to recall I got a standing ovation when I left. So I felt very good about that in spite of the fact that I'd had some real difficulty at an earlier senate meeting, a very difficult meeting where my executive vice chancellor was under attack for something that he'd been involved with with a faculty member. I tried to just calm things down and was really told in no uncertain terms that I'd better stop patronizing the faculty. So it was pretty uncomfortable, but that too went away, but this last thing was much nicer.

The penultimate thing that I would remember in this transition period was at the end of June of 1996. There was a wonderful evening reception and dinner planned for us at the Coconut Grove on the boardwalk, the big auditorium where it's a 1920s kind of a place, a wonderful old place. Anyway, we arrived there with our names on the marquee outside and had a wonderful evening. Both President Atkinson and President Emeritus Gardner were there, and Vice President Emeritus Angus Taylor and some of my fellow chancellors, I can't remember all of them at the moment. But it was a wonderful evening that Rita and I enjoyed. I said that's the penultimate [laughs] because the last thing I remember is the pile of boxes at University House [laughter] that we had amassed in the five-year period that we were there to be moved back to Lafayette. And I think I do not remember incorrectly that there were something like 120-some boxes of stuff that had to be moved back to Lafayette.

Housekeeping Items at Santa Cruz

LaBerge: Had you kept though a lot of stuff in Lafayette, too?

Pister: Oh yes, we--

LaBerge: So you probably only moved clothes, or--?

Pister: Yes. One of the deals was that since we were only going to go down there for a year initially, Rita, and with my complete support said, we don't want to move our furniture down there, and the house was not completely furnished surely. The public rooms were furnished, but the apartment that we lived in was not. So that required the president and the board to dedicate a certain number of dollars so we could buy furniture for the place. [laughs] I have to mention, I don't think I've mentioned this story, I had a whistleblower at Santa Cruz--I had more than one--[laughter] but a particular whistleblower that felt that I had, I think he wrote me a letter once, said that I had a "dirty tricks" kind of operation, you know, in the spirit of Richard Nixon.

LaBerge: What was the name of that whistleblower, or don't you want to say?

Pister: I don't remember his name. He left at one point before I left, which was a great relief. But he was convinced that I was an evil person, I guess. And at one point under the Public Records Act he asked for all the paperwork in connection with things that were bought for University House when we moved down. In that list of things, he found a couple of items that had been delivered to Lafayette that we brought down, and he thought he really had a smoking gun there [laughter], you know, that somehow we'd bought this stuff for--

LaBerge: For your house--

Pister: For our house in Lafayette. And so I remember one time my wife was absolutely furious. Somebody from whatever part of the business world on the campus came to do an inventory, an unannounced inventory of everything in the house. This was again the smoking gun thing, no previous warnings so we couldn't suddenly adjust things. Of course, nothing ever substantiated. We were completely innocent on this.

[laughs] That reminds me of another thing, I think I've mentioned the washing machine incident once. But there was no ironing board in the private quarters. So we, understandably, felt that [laughs] there ought to be an ironing board. So I bought an ironing board cabinet that you could mount on a wall, one like we had in our home in Lafayette. I paid for it and bought in Oakland and hauled it down, and our building people, carpenter people installed it in the wall. I felt there was no problem. I submitted the bill, and I don't know why it went through the student services. But it ended up in the office of my vice chancellor for student services, who one time at a meeting came in and said, "Chancellor, I have that check. You can't possibly cash that check because people will be absolutely outraged if they find that you spent three hundred dollars for an ironing board in your private quarters." So at that time, I was new on the job [laughs], I said, "Okay, okay." So I donated a three hundred-dollar plus ironing board. I don't think I've ever told M.R.C. Greenwood, she ought to put a marker under it that says, "The Karl and Rita Pister Memorial Ironing Board" in her quarters.

There were crazy things like that. I think I mentioned that Rita was accused of buying a hundred thousand dollars worth of china by one of the student newspapers there. They had a walkthrough before we got there and saw we had put in light cream-colored carpets, and that caused all sorts of consternation because it would get dirty, and--of course, this was in our private quarters. And then Rita was accused of buying all the china, and so on.

LaBerge: She didn't even want to go down there in the first place [laughs].

Pister: No. So, anyway, I'm getting off the track but--

LaBerge: But those things are good to be documented. People don't know the real story. Anyway, so you retired, and what had you planned to do?

Pister: So I made the metamorphosis back from a Banana Slug to a Bear! One of the early talks I gave down there to Santa Cruz alumni, I entitled, "The Metamorphosis of a Bear to a Banana Slug." So it turned out to be reversible, and I became a Bear again. Understandably we were quite happy to get back in our own home again and to live in a place that was not surrounded by 10,000 students. [laughs] Although the view there was beautiful, we have a nice view in our own home. It wasn't a difficult transition to get back to our home.

The other thing in thinking about this that was really an interesting contrast, in Santa Cruz, even though the city is larger than Lafayette, by virtue of our position, our pictures were often in the paper. We would go almost anywhere in Santa Cruz and you would be identified as to who you were in the bank or in the grocery store or wherever. You'd meet people, and they would know who you were. [laughs] Going back to Lafayette where we lived for almost forty years, we could walk down the street [laughs] and walk into the store and nobody had the slightest idea who you were. It was really quite an interesting contrast.

I think I've mentioned this, Mike Heyman, when he retired, said it's going from "who's who" to "who's he?" So it was nice to get back to the "who's he" position again because--even going back to our parish church, so many people there had changed. I think we only knew a handful of people that were there. Whereas in Santa Cruz when we went to Holy Cross on Sunday, again almost more than half the people there would know who we were, although we had a kind of a low profile experience. In fact I should mention that the last Sunday we went to mass at Santa Cruz, the pastor, Mike Marini, at the end of mass gave us a very beautiful and a very special commendation, saying that we'd been there and that we'd been a good example for the community and even though we'd had a kind of low key life in the parish.

Office of the President, 1996

Pister: Okay, so we're back home and I had told the president that--because we had talked before my retirement about my going into the president's office--I needed the summer off, and I took that. So I showed up to the president's office in September, and first, things there were quite different. The first thing, I had to find a place to live. Did I go over this already?

LaBerge: A little, yes, you did. You didn't have a place, and people didn't know who you were and you had no secretary, and--

Pister: Yes. They put me on the sixth floor with the Division of Agriculture and Natural Resources, DANR, under Reg Gomes, who was a good friend. But I was kind of out of touch with academic affairs, where I was supposed to work. So I finally got moved up to a much nicer office. I looked out over Lake Merritt next to Carol Tomlinson Keasey. She and I became good friends during the time she was there as an associate provost.

But I mean, the office was just the beginning. I had a computer and I moved in a lot of my books and files and stuff like that, but the president really hadn't given me very explicit directions about what I was going to do. In fact at the beginning my title was special assistant to the president, and then I think Janet Young was the one that said, "Well, that's not a suitable title." So my title was changed to senior associate to the president. And I was put in the academic affairs division, which is headed by Provost King.

LaBerge: You already knew him from this campus and engineering and everything.

Pister: Oh, yes. Jud and I had been deans together in the early 1980s. Then when Doris Calloway stepped out of the provost job, Jud became provost. So he got the professional schools and colleges. So we worked together. And I don't know if I've mentioned this before, but I remember upon one of the last meetings I had with Jud in the president's office remarking to him that, "You know Jud, we've worked together now for," I don't know how many years, certainly more than ten. And we had, in that period, never had a serious disagreement. He's a wonderful guy to work with. I think part of the reason for that is we're both engineers. We had very similar values and got along very well.

Work with Jud King on K-12 and CSU

Pister: Well, as I said, the president was really not very specific about what he wanted me to do. He said he wanted me to try to work more closely with the California State University system and with K-12. Remember, this was now the fall of 1996, and the regents were just putting together the task force on outreach, so it predated that. What I did was to make a few visits. I went up to Sacramento and visited Delaine Eastin to try to make my presence clear, what I was supposed to be doing.

LaBerge: Let's for the tape say she was superintendent--

Pister: Delaine was superintendent of public instruction, and I had a special connection to Delaine because my son-in-law Richard Whitmore, my daughter Jacinta's husband, was a senior staff member for Delaine.

LaBerge: Oh, okay. At that same time?

Pister: At that same time. Yes. Also, Delaine had visited me at Santa Cruz in the spring of 1996. We set up a day visit for her. Well, she visited all the districts of California during her tenure, which certainly is something in her favor. I wanted especially to show her the Monterey Bay Educational Consortium, which was an alliance of UC and CSU Monterey Bay and the four community colleges in the three Monterey Bay counties, and K-12 superintendents, and the Santa Cruz county superintendent. I was very proud of that. I got it started and gave the budget for it. It was really one of the very early examples of outreach from a UC campus in a more structured way to the K-12 system. I say proudly that it was a model for others that followed in the state and we got a lot of commendation for doing that. Anyway, Delaine came down to see that, and she gave a talk. I introduced her at the talk. So we had met and got along well.

The other things I did in this connection, I went to Sacramento to visit Gary Hart, who of course is a former assemblyman and senator from Santa Barbara, a person that I'd known over the years, in fact for fifteen or more years, and had great respect for. Gary headed an institute in the California State University system, an institute essentially for innovation in teacher preparation in education more broadly. I wanted to talk to him about the issues of preparing teachers because I was already beginning to see that the teacher crisis in California was imminent. I also made a trip down to Long Beach to Golden Shores to the chancellor's office of the California State University system.

LaBerge: What's Golden Shores?

Pister: That's the name of the street it's on.

LaBerge: Oh, it is.

Pister: Yes. I must say, our regents at one time and the public criticized the University of California for having its Office of the President in the Kaiser Building. Well, the chancellor's office at Long Beach is every bit as grand, shall we say, and perhaps more so than the Kaiser Building. It just shows that public perception is sometimes not very accurate. I mean, I don't want to take anything away from CSU. They deserve a decent building, so that's fine. But it just shows the inaccuracy of public perception.

LaBerge: And why Long Beach rather than one of the other campuses?

Pister: No, the chancellor's office is Long Beach--

LaBerge: And that's where the chancellor's--always there, okay, for all the CSUs.

Pister: So I went down and met the academic vice president and particularly the folks that were responsible for teacher education in the chancellor's office. The chancellor at that time was Barry Munitz. I had already met Barry on a number of occasions before and got to know him. I guess I got to know him best through the California Business Higher Education Forum, which was a creation of President Peltason. I had been with Barry at several major events. The transfer of the land at Fort Ord from the army to the CSU and to the University of California, was one such occasion. There was a ceremony at which, Bill Perry, then deputy secretary of defense, came out for that ceremony. Anyway, the deputy secretary of defense and President Peltason and I and Chancellor Munitz were at that event. I think I already mentioned another occasion when CSU Monterey Bay was dedicated. I think I don't have to go over that one again, when he introduced me as, "That leftist chancellor."

LaBerge: [laughs] Right.

Pister: So I met various people in the chancellor's office. I basically made myself known and I took the first steps in strengthening our connection to the CSU. As a matter of fact, that interaction, that connection was to grow in subsequent years. I didn't have any idea at the time how it was going to grow. But I think it was useful that I was able to do that at that time.

LaBerge: Because there's been a tension all along between the two.

Pister: Oh yes. Sure, that's right. And it helped that I knew these people.

[45B]

LaBerge: How about other meetings in Sacramento, or maybe that's not quite the time?

Pister: Well, I'll come to those, but I think now I want to concentrate more on what's going on in the president's office itself. As I said, I was kind of an, I don't know if this is an

appropriate characterization, an ambassador without portfolio. [laughter] My portfolio was still empty or almost empty. One of the other things I think that was an interesting adjustment was to begin sitting in in Provost King's cabinet. He had a weekly cabinet meeting that brought together his senior people, and even though I had no responsibilities of any kind [laughs], I showed up to these meetings and got briefings on things and learned what was going on.

LaBerge: What people or positions were in his cabinet?

Pister: Oh, the director of the education abroad program, John Marcum, was part of that; and Associate Vice President Dennis Galligani who had all the student services, admissions, all the issues involving students in the university; Assistant Vice President Ellen Switkes, who had academic personnel and graduate matters was included. Usually someone from the budget office would come, either Larry Hershman or Debbie Obley, although the budget office was not under Provost King, but there was a member there.

LaBerge: Mainly academic--

Pister: The university librarian was included. All the academic affairs related people were in that cabinet. I think the most significant thing that happened in that first six months was a consequence of a lunch in the Lakeview Club. I typically would get invited to have lunch with the president and in this case, the president and Provost King. This was in October of 1996. We had a lunch there, and the president announced that we needed a technology initiative. He said we need to try to find a way to use the resources of the university, the things we know about instructional technology, to bring this outside the university and specifically to focus it on K-12. He had that idea already. This is in October. At the November '96 regents' meeting, which I didn't attend--as a senior associate, I was able, I could have attended these meetings, but at that point in my new career--

LaBerge: [laughter] You didn't want to!

Pister: --since I had gone to so many regents' meetings, I wasn't terribly excited about going to more regents' meetings. So the president made an announcement to the board that we had a new initiative, instructional technology initiative. After that meeting in November 1996, alas, I was given the responsibility [laughs] of deciding what that initiative would be and developing it.

Birth of UC-NEXUS

LaBerge: Did he announce to the regents also that you were the one in charge?

Pister: I don't know that he did at that point, but it became plain because I had to report to the board subsequently [laughter]. So to cut to the bottom line on this, this basically created or was a conception, if not the birth, of a program which later was called UC-NEXUS. Nexus, of course, is a link or a connection, a link to K-12.

LaBerge: Did you come up with that name?

Pister: You know, I don't know where the name came from--we had a lot of discussion about the name. I don't think I came up with it, but it certainly was one that appealed to me. I had the good fortune of knowing, and I don't remember quite how he walked onto [laughs] the stage, a person who really had a lot of interest in this idea and had already done a lot of thinking about this, in the person of an LBL scientist by the name of Rolly Otto. He, along with a staff member that at the time was working with a Santa Cruz colleague who was in the Office of the President by the name of Hardy Frye--he and one of my staff people, Leann Parker, comprised the NEXUS team. The he being Charles Underwood, I forgot to mention who he was. So we had Rolly Otto, Charles Underwood and Leann Parker. That was in the fall. We made a presentation to the president, I think, about December of that year of what we thought we could do, how we could organize this plan to create basically a portal, a web portal to the University of California that would put the university and particularly faculty that had an interest in instructional technology, put people in touch with this group of people, and we'd have an interactive website and so on. Actually, the following July '97, we got a budget. Larry Hershman was able to get a budget for us to develop a plan. We created a statewide advisory committee for the campuses to structure this.

Also I had been invited that previous fall to a Berkeley campus meeting that was a presentation of a project that was already active at Berkeley called the Interactive University Project. The PI [principle investigator] for that was Carol Christ, and the director of it was a person named David Greenbaum. This UC Berkeley Interactive University Project in many respects was a kind of a prototype of what we wanted to do at the universitywide level. So what happened is that we took some of the resources of the NEXUS budget and subcontracted to David Greenbaum to develop the website that would be the NEXUS website.

LaBerge: Carol Christ was vice chancellor.

Pister: Yes.

LaBerge: What about David Greenbaum?

Pister: He was a staff member, the director of the Interactive University Project. That project still goes on, and I'm on the advisory committee again [laughs] of that project for the new provost, Paul Gray.

LaBerge: They will never let you off.

Pister: Yes. So things turn around. So this NEXUS program got started then, and it went on as long as I was there. I've lost touch with whether or not it even exists today or whether to use the lingo of the day, whether it has morphed into something [laughter] else with a different name or different shape or whether it just died a natural death, I don't know. But it took a lot of time for me to keep the thing moving. I made several presentations to the Board of Regents about it, and it was certainly I think a good idea.

The thing that probably really began to shift my focus and to perhaps give some specificity to this broad statement that Dick gave me to work more closely with CSU and K-12, which was really a very broad and insufficiently [laughs] detailed plan of action for me to engage--the thing that happened was that, and I mentioned this before, in the fall of

'97, the regents, I think it was November, approved the report of their own task force on diversity, which set up an advisory board and initiated four major thrust areas. As I said, I was given, along with a colleague, Bob Polkinghorn, responsibility for the school-university partnership phase of that plan. The budget that was prepared in the year '97-'98 and actually available in July '98, Governor Wilson's last budget, put a substantial amount of new money--I think it was thirty-two million dollars--into a programmatic structure that would support these thrust areas in the plan, which I think we owe a lot to, that he did that.

LaBerge: Did you have anything to do with going up and talking to the governor's staff, or--?

Pister: No, not at this stage yet, no. That was all done--because I was still a NEXUS person primarily and hadn't gotten connected to outreach until the regents' task force thing was approved, and they got a budget. And then the president asked or Jud King asked me to take over the school-university part, which was just one quarter of the educational outreach effort. I seem to remember I've talked about some of this, but just to maintain the continuity let me go on. I think I mentioned this was happening now, and Bob and I created an organizational structure because this partnership thing had to effectively work through the campuses. It wasn't partnerships of the president's office. So we had to develop a structure, and he and I worked on that. But Provost King had the overall responsibility for the implementation of the task force agenda along with his many other responsibilities. I was part of a working group of the people in each of these thrust areas that were supposed to implement the plan. But then I think I remembered saying that in December of 1997 the president received an unsolicited phone call from his San Diego colleague Mike Cole who got him out of the shower one morning, I think [laughter], to tell him that, "Nobody believes that you're really committed to diversity in the university." I'm paraphrasing of course, I don't know what that conversation actually was. But it was sufficiently, should I say full of motivation [laughs] for the president. That's not a very apt way to characterize it.

LaBerge: It must have made an impression on him.

Pister: It made a sufficient impression on President Atkinson that he called Provost King and me into his office and told us bluntly that he wanted me to take all, the full responsibility for outreach in the president's office and that meant that King was still in effect the one I reported to. I met regularly with Provost King, but it was my job to pull this together. And there were some really awkward elements about this that I don't think I've talked about yet. The first was that one of the major areas had to do with, of course, you can't decouple admissions from outreach. All the student-centered programs like EAOP, early academic outreach, which was a huge network of people out in the field on the campuses and off the campuses in some cases, the MESA program, the Puente program, all of this was under assistant vice president at that time Gallagani, he's now an associate vice president. And he reported directly to Jud. But I had overall responsibility for this so there was an awkward situation where I had responsibility, but the person that had [laughs] a quarter of my responsibility reported to somebody else.

On the other hand, just to make it clear, Dennis and I always worked together very, very well. I had no difficulty with him. Ultimately, as the organization matured, it became clear, and I think it was even perhaps not only an informal understanding, there was a

formal understanding that on matters concerning outreach, Dennis really reported to the provost through me. So he understood that.

I've mentioned already that the president, after telling me this in December of '97, in the January regents' meeting announced to the board, and there was a press release that I was going to be the new outreach leader. The *LA Times* picked that up and called me "the outreach czar."

LaBerge: Right. [laughs]

Pister: I didn't have any other title. I was still a senior associate to the president, and any time I spoke to the regents, I had to be introduced by the provost or the president. I couldn't spontaneously come to the table [laughter] under regent protocol. The provost always had to announce me, "Senior Associate to the President Pister will now give the report on outreach." So it was a little strange, but--.

LaBerge: I hope your children certainly gave you respect for all these various things.

Pister: [laughter] Yes, as I said before, this kind of ambiguous position that had remained ambiguous until--and it finally was October 11 of 1999 when I told the president that I was going to retire the following July. He on the spot gave me a battlefield promotion [laughs] to vice president for educational outreach. I never received anything in writing that that was the case, but everybody knew I was vice president, and that's what I was called.

Turf on the Campuses and at UCOP

LaBerge: And as vice president could you come to the table under regents' protocol or not?

Pister: No. I still had to be called by someone, but at least I had a title now that connected to what I was doing. The thing that was difficult about all of this was that the outreach efforts were very diffuse in the president's office, and the president's office in many respects resembles a university campus in that there is a significant amount of turf protection in--

LaBerge: I'd love it if you'd talk about that.

Pister: Yes. Well, let me talk first about the campus model of that. Departments are extraordinarily turf conscious. And there are some reasons for this. Some of them are sensible, and some of them are not. Essentially, you protect your turf because you want your workload to be protected, because your budget depends on your workload--roughly, although there are some egregious exceptions to that for different reasons. The other turf protection, I think, is less defensible, but no less prevalent. And that is if your department is the academic home of a particular area of research or teaching, how could any other department conceivably have more genuine, more penetrating insights or understandings about a field than your department? For example, if you are the Department of Mathematical Statistics, how could anyone outside of that department know anything

about statistics? They might know, but not with the incredible erudition that mathematical statisticians would have. I picked that because statistics is a great example of that. It's taught in many different parts of the campus. I might say composition is another great--. I just heard Don McQuade say that English IA is taught in twelve different departments on the campus. And I'm sure the English department, while not really having a great fondness for English IAB, still feels that it has the best, the most defensible insights as to what English IA should be. And so on, so that's a less defensible turf issue.

The president's office has a comparable structure; it's on a different basis. I think it's more of an historical basis, but there's some of this, "Well, we know better than you about how to do that" kind of an issue. The current slang for this is "stove piping." The institution, the activity, is just the sum of a whole bunch of stovepipes, and there's no communication from one to another. Everything goes up the flue independently.

LaBerge: What turfs would you say there are at the Office of the President?

Pister: Well, probably the biggest one, and the most powerful, is the budget. That's protected by the now vice president for budget. It used to be director of the budget, then it was an assistant or no, an associate vice president for the budget, and now the budget officer of the university is a full vice president.

LaBerge: Right, and that's Larry Hershman right now.

Pister: That's Larry Hershman, yes.

LaBerge: Actually he's had all those titles I think.

Pister: Yes, he has. He was even an assistant at some point when--way back twenty years ago or so. In speaking of this, I in no way want to diminish the ability of the budget office because they have done incredible service to the University of California. But it's a very, I'd say insulated, not isolated, insulated stove pipe [laugh] that an ordinary mortal can't really penetrate easily. And if it's student services, that's another, if it's graduate study, that's another, and so on.

So that when I had effectively to build a new department called educational outreach, I had essentially to work with the existing stovepipes [laughter] and create a new one so to speak, to protect myself. The difficulty was I had no budget with which to do this. This thing was created out of thin air so to speak, and the budget office kept saying, "Well, you've got to create your core budget out of your programs. You've got to take money out of programs." We just couldn't do that. The legislature was very interested in how we were spending the money from these new programs, and it created a real tension. It was never resolved during the time I was there. I have no idea whether or not my successors, there have been now three successors to me in this position, and I have no idea how well they have fared. But it was a very difficult thing. The budget issue was a very difficult thing for me.

LaBerge: In this capacity then, did you go to the president's cabinet meetings?

Pister: Yes, that's the next thing. When in December of '97 the president decided that he would make me responsible for all the outreach programs, a year before I became a vice president almost, he decided well, you should come to the president's cabinet meetings. The president's cabinet meetings were held at nine o'clock every Monday morning. That was an experience that I really looked forward to. All the vice presidents, the director of public information, the President's Executive Assistant, the Associate President, and Pat Pelfrey, who was the president's writer, attended. Everything that went out of the president's office she either wrote or looked at. Anything he had anything to do with. She is a wonderful person that I knew from the days when she worked for David Saxon. And I had forgotten that I had helped her out on something way back in 1978, '79 period. Pat never forgot that, so she was a good friend. She often called on me to review something that she was doing for the president, to get my insights. She respected my experience, and we had a lot of fun because we both had some fondness for Latin. We often exchanged brief greetings or emails using Latin.

Now that Pat's back here finishing her Ph.D. we've gotten together once or twice, and I'm looking forward to continuing that association. She's a wonderful person. I have great respect for her even though I was never able to get my last op-ed piece through her. [laughs] That was not her fault, but I wrote a critical op-ed piece concerning the legislature, and I think it kind of fell on a natural death since it wasn't politically astute for the university to publish it. But I published it, on my own in the *Contra Costa Times*. [laughs]

LaBerge: Oh, good for you. [laughter]

Birth and Evolution of Educational Outreach Programs

Pister: Yes. Anyway, so we went through the growing pains. During this period of the birth and the evolution of the educational outreach program, I made a series of trips to campuses. I met with outreach people on all the campuses and got to know them and their programs and a number of, almost each of the campuses, I should say, created a new structure. Some were much more robust and, I think, much better thought out than others. The campuses had different histories in the way they had been doing outreach. When I talk about outreach, I mean not only working with high schools and feeder schools, but working on professional development of K-12 teachers, working with community colleges, working with parents and students, potential university students and so on. There's the whole information and recruitment activity as well as dealing with the educational system itself.

We also held, for outreach people, a series of what you might call summer retreats. We had one at Davis. We had two down in San Diego. These were very valuable. It brought people together, and it gave a sense of identity, a synergy to the movement, in addition to being able to exchange information and learn from other campuses' successes and mistakes. So I was always very pleased with these meetings. I was very fond of the people. There was a wonderful spirit in the people working in these programs. During those years, between 1998, or the '98-'99 budget and the next two years, the budget

increased substantially. Governor Davis built on what Governor Wilson did, added a substantial amount of resources in teacher professional development, which--

Governor Gray Davis and Gary Hart: Reading Programs

[46A]

Pister: --focused on teacher professional development, and that further expanded the responsibilities and the number of programs that our educational outreach was responsible for. In fact, the governor funded these professional development programs--the first year, this would've been the '99-2000 year, he funded a professional development program for teaching teachers how to teach reading to K-3 kids, I think a very sensible first move. By the way, I should say Governor Davis, of course, also appointed Gary Hart secretary of education. This was a very good move for us because not only is Gary a very experienced and decent person for the job, but he was well thought of and well connected to the university. My colleague Bob Polkinghorn was a very close friend of Gary, and this was immensely helpful in the early days of getting Governor Davis's education initiatives started in the university. The governor turned to UC, much to the displeasure of the CSU folks, to deliver these professional development institutes for teachers, of which I've just mentioned one, the reading institute. In reality we utilized CSU more than we did UC campuses. But we had the fiscal responsibility for the programs.

So at any rate, there was a huge expansion and these first programs turned out to be very successful, and I was very proud of what happened. In fact, it was largely due to my colleague Bob Polkinghorn, this first year, to get these programs going. And as a consequence of that, the president was so impressed that he made Bob an assistant vice president for educational outreach. So I had an assistant vice president with me then for the last year and a half or so in this position.

UCOP Meetings with Cabinet

LaBerge: Did we finish with the president cabinet's meetings?

Pister: No, well, I'll go back. I don't know how I got off on that. But, I was talking about people I guess. I should mention that one of the things that President Atkinson did, following President Peltason, he invited the chairman of the Academic Council to sit in on the cabinet meetings, which was, I think, a very significant move on his part. So what typically would happen at the cabinet meetings, the president would, if he had something on his mind that he wanted to bounce off of people to get reactions, he would do that. He always started the meetings.

Typically, his senior assistant--first it was Janet Young when she was still there until she went to Los Alamos, and then Pat Hayashi who followed Janet Young in that position,

prepared his agenda. Pat as you know came from Berkeley. He's now associate president. He did very, very well. Anyway, it was either Janet Young or later Pat Hayashi who would try to give the president an agenda, and whether or not he followed it, that's another issue, but--the president would basically float out things that were on his mind. Then, as time permitted, we'd go around the table, and each one would kind of give a very brief status report about his or her area of activity. It was always fun because it was done, not in a very somber way. I guess by virtue of my own position, the fact that I was always the oldest person in the room--and also one that had been with Dick as a fellow chancellor and all, I never felt the slightest bit constrained to say what was on my mind.

LaBerge: I'm sure you didn't. [laughter]

Pister: And people kind of looked forward to that, and sometimes would listen with a shocked expression on their faces at some of the things that I would say from time to time. Because I didn't hesitate to be brutally honest in my responses. But also, I hope with always a sense of humor, so that people would see that I wasn't that serious. But that was one of the [laughs] sustaining positive things about the job, that I could attend the meetings with Dick.

My own sense of the quality of our association was reinforced by his assistant Diana Cifelli whom he brought with him from San Diego. Diana, who is a great person in her own right, often reminded me that, "The president has great trust in you, and he appreciates what you have to say." I think it was important for me to hear that because in a sense I needed to be careful, very careful of what I did say to him. Well, it was important to be thoughtful and not to be too far out one side or the other on an issue when he wanted to hear my opinion. Although certainly if I felt strongly about something I never hesitated to tell him about it. Whether or not I would be successful is another matter, but that's the president's job to decide.

But by the way, in thinking about Diana and others, and Janet Young when she was there, I think I mentioned already, she was a tremendous help to me when I was chancellor, and I could confide in her. I learned years ago in the University of California that one of the best ways to try to insure that you're going to be successful in things is to get to know and to respect the staff in the university, because they are the most permanent part of the university in a sense. They are really the glue, if you want to say it that way, or the oil [laughs] that reduces the friction, or the glue that holds it together, or the energy that moves things along. If you get to know and gain the respect of staff people, you can do ever so much more good in the university than if you, alas, treat them like, unfortunately, too many colleagues do, "Well, you are the servants of the university, and therefore you don't have the respect nor should you have the respect that I as a faculty member have." I've seen that so many times work to the disadvantage of an individual. On the other hand, I've seen so many times, I have been the benefactor so many times, of staff who have helped me when I really needed help.

LaBerge: As you're saying that, you've mentioned some, but I'm thinking of people who are long retired like Nancy Nakayama and Dorothy Everett and--

Pister: Yes, sure. These are all--and Marj Woolman--they're all in my hall of fame. Yes. A lot of great people. I saw Nancy in fact at the recent oral history project meeting. She changed her name along the way--

LaBerge: Oh, she was Nancy Fujita.

Pister: She's a lovely lady.

LaBerge: Okay, how about going back to Sacramento. One of the things, you have "briefings in Sacramento." This is on your list--with Cruz Bustamente and Villaraigosa, or maybe that doesn't fit.

Pister: We can talk about it. Before we move there, I was talking about all of the associations with people. [laughs] One of the most difficult was the relationship with the Berkeley campus. I can't leave [laughs] the record undone on that.

LaBerge: Is this Governor Davis or Wilson?

Pister: Governor Wilson. In Governor Wilson's budget that created the initial funding for the school-university partnerships with a huge augmentation, we allocated that budget on the basis of asking each campus to submit proposals to show how they would use these new funds, which were permanent funds, as permanent as funds can be permanent. They weren't one time, in other words. They were recurring funds. We had each campus prepare proposals. Then we convened a panel of people from the campuses. Each campus then was invited to send a team or an individual to make a presentation to this peer group that reviewed and made recommendations to me and to Bob Polkinghorn. We in turn evaluated them and recommended to Jud, who then had to have the budget office's approval. He couldn't do it alone. That's another ambiguous relationship in the president's office. *The* senior vice president for academic affairs doesn't really have, in my view, final control of his own budget, a matter that he and I often discuss at some length. It's a peculiarity of the organization and the history of the presidency and the individuals that have worked with the budget officer.

At any rate, so we have this process, and the campuses made presentations of varying quality, understandably. Berkeley, much to our surprise, made a very good presentation. So we gave Berkeley a more than average slice of the pie--in other words if you divided it up a certain way among nine campuses, some campuses got more than others, and Berkeley got more than others. Unwittingly, I had no idea what some of the outcomes would be as a result of this initial allocation of permanent money. We would have been much better off in retrospect if we had held some money back rather than allocating it all. Although the budget office was screaming at us, "You've got to allocate all that money, because the legislature is going to ask what we did with it, and we have to report back." So there was pressure from Larry to get it all out the door. But in hindsight I was a fool to do that because the people that got the most money weren't necessarily the ones that did the best jobs subsequently. So the people that got less money who thought they had done a better job were angry. Specifically I had a huge issue with UC San Diego over this. My colleague Bob Dynes just about jumped out of his skin because he got less than average money, and it just was a real issue. I don't know whether he was made whole subsequently.

But Berkeley did a great job. I subsequently learned, alas, that the proposal was written by Pat Hayashi [laughter] who then went to the president's office and left what I would call a vacuum at Berkeley. So that was kind of the beginning. Berkeley got off to a bad start. It suffered in my view from trying to build its outreach program on the tail end of a

program that Chancellor Tien had started, the Berkeley Pledge. The Berkeley Pledge was an early conceptualization of what outreach should be, but later on outreach became a much broader concept and required a much more substantial implementation, and I don't think Berkeley ever adjusted to that properly.

Principals' Leadership Institute at Berkeley and UCLA

Pister: So it was no surprise when in the second year of Governor Davis's budget, when these new institutes came along, the Principals' Leadership Institute and the Teacher Scholar Program, Berkeley was not really terribly interested in accepting this responsibility. These Principals Leadership programs were essentially what I'd call professional programs at the postgraduate level--to take potential principal and superintendent material, and give them the necessary professional training so they could more effectively step into roles of principals and superintendents or assistant superintendents. The governor wanted this done only at Berkeley and UCLA, and you can imagine what that caused. First of all, Berkeley didn't want to do it. UCLA was willing to do it, but other campuses said, "Why can't we do it?"

LaBerge: Yes.

Pister: [laughter] And the president--and we even had Gary Hart on our side on this one--didn't want to go to the mat on this with the governor although it's an egregious intervention of the executive branch into the constitutionally protected University of California. But given an understanding of Governor Davis's personality, the president wisely chose not to go to the mat on this matter, and so Berkeley and UCLA had to take the programs. Well, Berkeley as I said, expressed a great deal of reluctance about this.

LaBerge: Do you want--are there any persons who expressed the reluctance that we--or not--?

Pister: Well, I'll come to that. [laughter] The dean of education at Berkeley was a person that I worked with at Santa Cruz. It was Dean Gene Garcia. He had been a dean for me at Santa Cruz. He was a personal friend. It wasn't that he was reluctant, but he had a faculty that had less interest in this sort of thing than in some other things.

So this was an amusing point in retrospect. At the time I was really very upset by it. One day I got a letter from the president. In fact, Jud and I each got a copy of it. [laughs] It was addressed to the two of us, I think. Basically telling us that, by gosh, you'd better get this Principals Leadership Institute program off the ground and get it moving, and I want a report from you on a regular basis. I think it was monthly we had to report on the progress of this, and it was really very detailed. And the odd thing about it was the memo was addressed to Jud and me, and carbon copies were sent to [UC Berkeley Chancellor] Berdahl and [UCLA Chancellor Albert] Carnesale.

LaBerge: Who are the chancellors at the campuses--

Pister: Who are the chancellors at the campuses where this had to take place. I said to myself and Jud said, "What's going on here? The letters [laughs] should have gone to the two

chancellors, and we should have been copied on it, because we had the action to follow up on." Well, it turns out the memo was written by Pat Hayashi, I learned later on, and I really chided him for this, and he apologized. I think it was inexperience on his part that the memo was sent that way.

But anyway that's not the end of the story. Berkeley still was not showing the kind of progress that it should. So what happened, the president said, "I want you to go talk to the chancellor." So I'm the poor messenger that has to go out. [laughter] The president doesn't call up Bob Berdahl and say, "Bob Berdahl, you've got to get your act together," he sent me to tell him that! So I still remember showing up in California Hall one day, and I was sitting there waiting to go in to see the chancellor, and Bob walked in and said, "Well, I see you're here to take me to the woodshed." [laughter] So anyway, I had to go into his office with Carol Christ and in a polite way say that I was taking you to the woodshed. "You've got to get your dean of education, your faculty, get their act together." So, in fact ultimately they did, and I can't remember what was the occasion, Germaine, but some time this last year I was at some kind of a meeting where--maybe you were there too--

LaBerge: I was at the meeting too. It was--

Pister: What meeting was that?

LaBerge: It was--now I don't have the name of the person who gave it, but it was about K-12--the education school and the public education agenda. And it was at CSHE.

Pister: Yes. Well, that was Dave Pearson. Yes. That's right.

LaBerge: And he talked about how this had been a huge success.

Pister: A huge success, yes, and I had to remind him that it was a success, and Berkeley was dragged kicking and screaming into its pinnacle of success. That was a crazy experience that I--. I think I actually made two trips, but I only remember the one, talking to Berdahl. And those reports had to come in on a monthly basis for a while. I suppose [laughs] they're not coming in anymore, but--.

It was a crazy thing. They were supposed to turn out 200 graduates of this program on each campus, each year. It was utterly amazing--I don't know who came up with that number, how they possibly could've figured out that we could do that. Anyway, that's water under the bridge now, but at the time it was a very stressful situation.

The other thing that was really weird on the professional development of teachers agenda, we got that program up and the reading institutes the first year were extremely successful. The governor's wife visited a number of sites where this program had been presented, and came back to Sacramento with the knowledge that the programs were very successful, but people didn't seem to connect them to Governor Davis. [laughter] And as a consequence, the programs were renamed the Governor's Professional Development Institutes, I do believe.

LaBerge: Do you want to go more into what's happened with Berkeley now? Like, you said that when Pat Hayashi left there was a vacuum and--

Pister: Yes. Berkeley, in my view, always has trouble pulling together its highly decentralized activities. It's a place that really thrives on individual entrepreneurial activity. And it's very difficult--and I really ran into this when I was dean of engineering trying to, I might say unsuccessfully, create sufficiently robust proposals that the National Science Foundation would give us support for an interdisciplinary center of one type or another. There was a new program called Engineering Research Centers, but it required almost, for Berkeley, a Herculean effort to bring together disparate communities of faculty into some kind of a coherent whole that would be sufficiently unambiguous that an outside reviewer would say, "Yes, these people are really working together in this area." Berkeley has never been good at that. It may have improved in the last ten years and particularly with the new thrust in the health sciences and in the governor's research institute, the one that Berkeley has, the so-called CITRUS program that Dean [Richard] Newton is really pushing. That represents, I think, a milestone of progress in the area that I'm talking about, but it has always been a problem. So outreach kind of fell on a rocky shore.

I think one of my last official acts as vice president, I went around to each campus. On the strength of an annual report that each campus gave, we came back and made essentially a review or a commentary on what we thought was good and what we thought needed improvement in outreach. I still remember a meeting at the Faculty Club with all the Berkeley folks around the table, and I with my staff still saying, "Well, you've made progress, but there's still some distance to go." I have really now in the last couple of years lost touch with where Berkeley is, so I can't say whether or not things have been improved or not. At the time I left the job two years ago, Berkeley still in my view didn't have its act together to the degree that a campus like this should. But now I've just learned that the budgets have been cut dramatically again in this area, and I'm really concerned about what's going to happen.

LaBerge: We have about five more minutes.

Sacramento Briefings: Cruz Bustamente and Antonio Villaraigosa

Pister: Where am I here? Okay, we were talking about some of the interesting but less pleasant experiences in working in outreach as vice president. During my last year, I was requested to give briefings on our outreach programs to Lieutenant Governor Bustamente and Assembly Speaker Antonio Villaraigosa. I remember those two hours as extremely tense and unpleasant. The lieutenant governor really had no interest in what I had to say. In fact to use a typical term today, I was disrespected by the lieutenant governor, who scarcely acknowledged that I was the senior officer of the university present.

LaBerge: Who else was in those meetings?

Pister: Bob Polkinghorn would be there typically and sometimes Dennis Galligani if it had to do with admissions. But it was just an opportunity for him to beat up on the University of California. Antonio was a little less unpleasant, and I have to say when I retired [laughs], he signed a very nice resolution praising me. So that again, just to temper my observations about these two elected officials, it's not uncommon that people in these

positions read their lines as if they were on a stage, and the character that they are portraying at that instant is not necessarily the person or even the feelings that they represent. I found that to be true more often than not. In some other contexts one sees this, when a public official says something in public but has a different view in private.

LaBerge: Yes. Maybe they're representing their boss or their--

Pister: Yes. So that was part of it. Certainly Antonio and I personally get along--and I had a good relationship with one of his staff people who had been a student regent, so that I don't think that was necessarily his feeling. On the other hand, the lieutenant governor and I never really seemed to get along well on issues. My last regents' meeting in May of 2000 at UCLA was the occasion of my last report on the status of outreach. I gave an annual report on the status of outreach because it was very much on the minds of regents, of course. [laughs] I still remember, the meeting went on and on in the morning and got way behind schedule. So I had about a half an hour presentation, Power Point, ready to go, and I was told at the last minute, "Well, you've got to do this in five minutes," or something like that. So I was somewhat less than cheerful about that. So, I think I might have taken ten minutes, I don't remember what it was.

[46B]

Pister: The presentation was fairly brief, but the discussion for the board went on for almost a half an hour because this is something that they were really interested in.

LaBerge: Right, and it was important.

Pister: Oh, absolutely, yes. But the lieutenant governor just really bashed me on this again. You know, "You're not--" And basically, what I was trying to explain to him was that we had invested in and we were pursuing a long-term strategy. That you could not just instantaneously increase the number of disadvantaged students at the university without building from the base. You had to start down in K-12 to do this. I pointed this out. There's going to be a phasing problem. It's not going to happen for years yet. We're trying to build a new partnership that will as early as possible get teachers and their young students interested in and aware of the importance of a college education and what steps you'd have to follow to get there. You can't do this at the high school level only, it's far too late. So anyway, he didn't want to hear any of that. He said, "We put all of these millions of dollars into your programs, and you're not producing."

LaBerge: It sounds like he had no idea that he was, to you, really preaching to the choir. I mean, as if you didn't care. [laughs]

Pister: Yes. No, I understand--. But again, to what extent Cruz Bustamente was on stage in this event and whether he really believes this, I don't know. So I have to give him the benefit of the doubt, but it certainly was unpleasant to me. I was so upset that by the time I left the meeting, I just hopped in a car with Dennis Galligani and came back up here. As a result, I missed the fact that the board had prepared a second resolution on the occasion of my retirement [laughter], and I wasn't there when they read the resolution. So I'm one of the few I imagine that has two resolutions on the occasion of retirement.

LaBerge: I'm afraid we're going to have to leave it there because I think the students are needing this room. I feel a little bit like Jim Lehrer when he cuts off his show.[laughs]

Pister: Not a problem. We can pick this up--.

Sacramento Briefings: John Vasconcellos

[Interview 24: May 28, 2002] ## [47A]

LaBerge: Well, today we're going to finish up your time at the Office of the President. You had several legislative dealings, and one we didn't cover was Senator John Vasconcellos who I'm interviewing by the way, not actively. I haven't seen him in two years. [laughs] But I'm interviewing him.

Pister: Well, I certainly want to mention John, whom I saw in Sacramento. In fact, he came to a dinner last Wednesday in Sacramento of my California Council on Science and Technology and I had a chance to speak with John. I first met John back in 1978 when I was vice chairman of the Academic Council, and John chaired the Assembly Committee on Education, on the higher education part of it. He held budget hearings, and I attended some of those budget hearings. Then the subsequent year when I was chairman of the council, I think there had been a change already, and he was in a different capacity, and Gary Hart was the chair of the committee. Anyway, I overlapped both of them. I met John very early on. At the beginning he was a very imposing figure, a big man sitting up on the raised platform chairing the committee and really being a tough guy. His administrative chief, I don't know if she was the chief of staff, but she did the staff work for higher education, was a person that later came to the Berkeley campus that I knew, Roz Elms. Roz was Rod Parks' assistant for a period of time here. Anyway, Roz was his chief of staff for higher education, and she was married to a Davis faculty member. So she had inside knowledge of the university [laughs], and at any rate that was the team. I remember some very uncomfortable moments in those hearings.

But for reasons that are not entirely clear, I got to know John kind of outside of this and I think it might have even been on the strength of something, two things that I did, which were really unconnected with education. I remember reading an article in, I guess, the *Contra Costa Times* that his father had died, and his father had been a long-time teacher in San Pablo, I believe. So I wrote a note to John because my parents had both been teachers. John always replied in a very standard way, very large handwriting, hard to read sometimes, and he expressed real appreciation for that and thanked me for remembering him and his father. Then on a subsequent occasion when John was getting really bad press, this was in the 1980s now when I was dean, getting bad press on his self-esteem report.

LaBerge: Yes, didn't *Doonesbury* do a take-off?

Pister: Yes. *Doonesbury* took him on, and he was being ridiculed, and I happened to agree with John's position on this. I thought his work was very important, and I was saddened by the reception it received. So I wrote him another note saying--and this really shocked him, he

said, "This is the last person, a dean of engineering, that I expect to write me a note about this." On what occasions I met John during the eighties, isn't clear, but we kept in touch. Then when I went to Santa Cruz, we were clearly much more in touch because I went to Sacramento fairly regularly then, and any time I went to Sacramento, I would visit John Vasconcellos, and the visit would be arranged. You just don't drop in and expect to see somebody. But whatever else my agenda was, I would meet with John. And he's a very mercurial person. At times he's up, and times he's very down.

But all the time that I was at Santa Cruz, he'd send little notes back and forth about education and always being very open to help wherever he could. And he's remained that way in his last few years now in the senate before he's termed out. He's still a very decent, very principled member of the body politic in Sacramento. I really enjoyed knowing John, and he's had a very significant influence on higher education in California. He's very supportive of the University of California, but he doesn't hesitate a moment to criticize us when he thinks we're not doing the right thing. So that's probably one of my most productive and I think most warm experiences with the legislature. [laughs]

Another person with whom I have not as close a relationship, but I have great respect for and that I did have a chance to work with as a member of the president's office, was Gary Hart. I knew Gary as a senator and got to know him and respected him very much. I was pleased when he retired from the senate and I was in the president's office, we had a chance to work together once again.

The "Tuesday Massacre"

Pister: On the other hand, some of the other things [laughs] that happened in Sacramento were less than pleasant, I would have to say. I think I've spoken about some of the briefings that I have conducted in my capacity as vice president. There was one other really, in retrospect amusing, but at the time not at all pleasant experience, which I've called the "Tuesday Massacre." I think I've mentioned, my assistant vice president Bob Polkinghorn who had a lot of experience in K-12 education. He'd been a teacher, he'd been a principal of a school. He'd been a member of a board of education. So he really knew K-12. I want to just pause to say that during my time in the president's office when I first started working with Bob until I left, I had a wonderful working relationship with him, and I learned a great deal about the K-12 system from Bob. And he was a wonderful teacher. I in turn helped him in his professional growth and his understanding of the complexities of the university academic administration. So it was a very productive interchange that we had, and I owe Bob a great deal for the knowledge that he imparted to me about K-12 and the complexities of that system.

But at any rate, Bob had been responsible for the subject matter projects, California subject matter projects, like the California Writing Project and math project and so on. I think prudently he had employed on a part-time basis a professional consultant who had worked in the legislature and who really knew her way around Sacramento. He had employed her to try to keep some sense of some of the negotiations going on in

Sacramento with respect to K-12 issues and the university's connection with these. Well, having said that, I should also--

LaBerge: [laughs] Are you going to give me her name or not?

Pister: You know she's deceased now. It was Mimi Modisette. She had a very tragic and unfortunate early death a year or so ago. But having said this, I have to put that alongside the position of the governmental relations office in Sacramento. At the time I first learned about it, was headed by Lowell Paige, who had been a faculty member in mathematics at UCLA before he went to Sacramento to carry on the responsibility of representing the university in Sacramento. His assistant at the time was Steve Arditti, and Steve now is an assistant vice president for governmental relations in Sacramento. Steve's office really keeps track of bills in the legislature and keeps track of individuals and where they stand on positions that are of importance to the university, an absolutely critical job. But Steve, and if I were in his position, I would be the same way, Steve is extremely sensitive to anyone else talking to anybody [laughs] in Sacramento about university affairs without him knowing about it and basically being part of the discussion.

This was the case when [laughs] this person, Mimi, that Bob had employed, was doing something I can't remember who she was even talking to, but Steve found out about this, and he just about went crazy. So I was summoned to Sacramento along with Bob, I think, and I think Jud King was supposed to be there as well. He was on the telephone, on a conference call, and Steve was there [laughs] with our budget people, Larry Hershman and Debbie Obley, who again have a very well-defined position in negotiating with the Department of Finance and others on the budget. We just really got told off for this end-run around the president's office official representative in Sacramento. So anyway, Jud and I took the responsibility for that, but it was--

LaBerge: And I assume terminated the consultant?

Pister: No, actually, I think it was just a question of coordinating better. I think it actually ultimately worked out, but I remember at the time it was a pretty bloody affair. It is amusing to look back on it now, but not so much fun at the time. Anyway, I think that--

LaBerge: How about Sarah Reyes?

Pister: Oh, yes. There was one other budget hearing during the time I was vice president on our outreach budget that was conducted by Assemblywoman Sarah Reyes from Fresno. She chaired the assembly committee, and I can't remember all the people on it now. But it was basically the epitome of stage production that, as far as I'm concerned that--the kind of hearing that's conducted much more for the public than it is for the merits of the issues. She was extremely critical of the University of California. This was over our professional development institutes. "Why was the governor giving the professional development money for teachers to the University of California? It ought to be split between the CSU or given to CSU." Never mind the fact that CSU did get most of that money [laughs] because they delivered the programs; we only had administrative control. But nothing that we were doing was right. She just jumped all over us and had speakers lined up to add to the momentum of her own criticism. But this was my last major appearance in Sacramento, as I recall. It would have been in the spring of 2000, in that budget cycle. Although the very last lashing that I got was the May regents' meeting, and I think I

might have spoken about that, from the lieutenant governor. Yes, I'm sure I spoke about that.

LaBerge: You spoke about--but I didn't realize it was a regents' meeting.

Pister: Yes. I remember speaking about that now, so I don't have to go back over that. Anyway, as I look back on that Sacramento experience, it just reinforces for me two things. An average faculty member in the University of California has no appreciation and certainly very little knowledge of what happens in the university's budget process, or what happens not only at budget time but all during the year to the university in Sacramento. Further the president's office has a major responsibility that's focused on dealing with the legislature and trying to explain the facts, trying to cut down on the incorrect perceptions that exist up there, to protect the faculty and allow them to do their job.

Having said that, [laughs] I'm reminded just to make the point of an incident that happened when I was chancellor at Santa Cruz. I got a letter through my chancellor's mail system from Senator Quentin Kopp, obviously prepared by his staff and some witch hunter on his staff or a witch hunter somewhere that sent it to him. He just jumped all over me for inappropriate and indeed illegal uses of university funds, as he put it in his accusations, for two things. One, for offering a rock climbing course, and two, for paying for a van to take students from the campus down to the Safeway store at ten o'clock in the evening. "Chancellor, you must answer to this irresponsible use of state funds." Well, of course, one would hope that given the facts he would understand that what I had done was not [laughs] illegal nor inappropriate. The rock climbing course was a course given in the summertime by our physical education staff, a course for which the students had to pay the full fee for the instructor; it had nothing to do with any state budget issue. The van that took students down to buy groceries at night was specifically authorized by the student government using student fees to deal with the issue of students who lived in the Kresge apartments who needed to go down and buy food.

LaBerge: My son lived in Kresge, so I understand that whole issue. I know it. [laughter]

Final Final Retirement, 2000

Pister: That's a case in point. But that's the kind of thing that happens over and over again in the daily life of the university. On every campus some citizen or some elected official gets a wild hare and follows it up. So what you have to do of course is calmly respond with no innuendo or anything like that and just answer the facts and the problems typically go away. The end of my term in the president's office was celebrated the end of June 2000 by a very nicely organized and very warmly delivered celebration at the Lakeview Club in the Kaiser Building. Lots of people came to that even though I had already retired once from Santa Cruz. Some very nice things were said, and I received a wonderful book of memories and a beautiful plaque for my wall with a quotation from the speech that I gave at my investiture at Santa Cruz. So I have that on my wall at home. I entitled this speech, "Four Dreams."

LaBerge: Right, and I have a copy of it.

Pister: Yes. So I was very pleased with that. And with that, I gave up my two electronic identification tags [laughs], I could no longer walk through the security line in the president's office nor could I get into the garage any more. So that's the end of the line there.

LaBerge: And no parking permits for life or anything like that?

Pister: Oh, that's a separate thing. The chancellors emeriti, I don't know when this practice started, are given a courtesy parking permit by the president.

LaBerge: That's wonderful. That's one of the main issues. So, on any campus?

Pister: That's correct, yes. Whether or not it works on any campus, that's a separate thing. But I have it glued on the dashboard of my car because I had an earlier permit from President Atkinson--this is an unbelievable tale. [laughter] I had it just sitting on the dashboard, and coming in one night to a basketball game, I reached up for it to grab it to show it to the attendant so I could get into the Dwinelle parking lot. And in doing so I pushed it against the windshield and it slipped into a crack and disappeared. [laughter] So I lost my parking permit. Thanks to Diana Cifelli, the president's assistant, I sent her an email and pleaded for another copy, and she kindly gave it to me. But I am told those permits are very tightly guarded because they're quite a nice perquisite. For the first years after I retired though, for some reason I didn't use them. I paid for an emeritus permit here. Now all of a sudden I said, "Why am I doing this?" Because I think the emeriti permits went up--

LaBerge: Quite a bit.

Pister: Yes. So anyway, that's the end of the story. My only connection now to the Office of the President is to have a more or less regular lunch with the president every couple of months.

LaBerge: As an informal advisor sort of.

Pister: Yes, right.

LaBerge: Would you like to, from there, go into how you actually went into retirement?

Pister: Yes, that's probably a good sequel.

LaBerge: What did you do? What was the transition like? Did you take a trip, or how did you get into every day life?

Pister: When I left the president's office, there was probably less of a change than when I went from Santa Cruz to the president's office. Since I had been really officially employed 49 percent time, although I typically went to the building every day, sometimes I would not go. My wife tried to work with my secretary to get Fridays off, but that rarely happened, particularly when the outreach program really expanded with all the stuff going on, all the traveling I had to do to the campuses as the outreach program matured, I just had a full-time job. No, the slipping back into now a new unemployed status was probably much less dramatic. What happened is that I really started to spend more time on the Berkeley campus and become reengaged with the Berkeley campus so that in a sense I made a

substitution. Then, of course, someone came along with the oral history project [laughter], and for a good period of time after I left the president's office, I really spent time getting prepared to do the oral history, going through all the files and throwing things out.

LaBerge: Oh, I know you did.

Pister: I think it was a year or so that--

LaBerge: Yes, it was because we started one November [2000] and we didn't pick up again until the next January [2002].

Carryover Outreach Work

Pister: Yes, anyway, a number of things really carried over, and maybe that's the easiest thing to do, to look at the things that carried over first. By virtue of my involvement with outreach and having created the alliance at Santa Cruz called the Monterey Bay Educational Consortium, MBEC, I was asked to join a group, an advisory committee for the California Alliance for K-18 partnerships. So I've continued to be involved in relations among the different segments of education in California through this alliance, and then perhaps more specifically I continued the work that I was doing with the Center for the Future of Teaching and Learning. I had been a co-chair of a task force that was focused on the K-12 teacher crisis, the research that was necessary to document the teacher crisis, and I had that job for a couple of years. So I continued there but became more directly engaged with the center by virtue of accepting an appointment on the board of directors of the center.

LaBerge: Where is the center?

Pister: It's located in Santa Cruz.

LaBerge: Okay. On the campus, or just the city?

Pister: No, it's on Mission Street in Santa Cruz, very near the intersection of Highway 17 and Mission, in fact. There's a big office building there. So those things essentially were just doing the same thing I've been doing before, only perhaps more of it now. The other thing that I should say, in the spring of 2000, I had a visit from Bob Shireman, who was a program officer at the James Irvine Foundation. He asked my interest in being the, what do you call, the point person on following up on a summit that had been held at Stanford University in December of 1999. This was a summit that convened the presidents and chancellors of all California institutions that credential teachers, and that group passed a series of resolutions, and the Irvine Foundation was anxious to keep that alive, insofar as possible. It took almost between the spring and my retirement to figure out what we might do to work out an arrangement with the Irvine Foundation where I served as a consultant to follow up on that summit and the resolutions.

LaBerge: Had you gone to the summit?

Pister: No, I had not, because I wasn't a president or a chancellor, but I was certainly aware of it, and I read the report that came out of it in 2000. So I have remained active with the Irvine Foundation and now with the center which took over that responsibility for the Irvine Foundation, following up on the summit. One of the things we've done is to establish a kind of a prototype study in the Kern County area to look at the dynamics of the inflow and outflow of teachers in Kern County. That study has gone very well, and we're now looking for other places to do the same thing in California, to learn more about the supply and demand for teachers in public schools.

Some other things that really carried over from my life that were not in anyway interrupted by the change in status was my continuing membership on the board of directors of the Monterey Bay Aquarium Research Institute. Have I spoken about that before?

LaBerge: No.

Monterey Bay Aquarium Research Institute and Institute of International Studies

Pister: David Packard established this research institute some years before his death, and it is fully funded, or the core funding at least, by the Packard Foundation. It's located at Moss Landing, and I was appointed to the board while I was at Santa Cruz. It's a very fine group of people, and the institute basically carries out research in marine sciences, has three vessels and a staff of scientists and engineers that follow David Packard's leadership in looking for engineering to enable science, and then the discoveries of science in turn pose new challenges for engineering technology to enable more science. So it's a beautiful example of the two-way flow between science and engineering. The engineering is largely the engineering of hardware and software and devices to provide instrumentation for doing experiments in the ocean, particularly the deep ocean. So that's been a continuing interest, and I will be going down to Moss Landing next month for a two-day meeting.

[47B]

Pister: Another relationship that was established while I was at Santa Cruz that I've continued is to be a member of the board of trustees of the Monterey Institute of International Studies, which is understandably located in Monterey. This is a graduate school for language and international business, international environmental issues, a very fine faculty and a very interesting, very, highly international group of faculty and students that are dedicated to those areas that I mentioned. So I've enjoyed being a part of that operation as well. Then I, of course, I continued with two other boards, one that I chair, the California Council on Science and Technology. That's where I was last week when I was with John Vasconcellos. That council is continuing to do some very important and, I think, excellent work for the state of California. Then, I think I've mentioned already my participation in the American University of Armenia Corporation. That continues. As I said, I've been the treasurer of that organization for the last few years, and that takes a fair amount of my time.

Dedication of CSU Monterey Bay -- Meeting President Clinton, September 1995

Official White House Photo

Another professional area that I've been engaged in for now, forty-five years, with a brief hiatus when I was at Santa Cruz, has been my relationship with the Lawrence Livermore National Lab. I think I may have mentioned, I went out there first as a summer employee in 1957, and apart from the time that I was at Santa Cruz, I've been associated with the laboratory, particularly with engineering ever since. The last five years I have been a member of and chairman more recently of the director's review committee for the engineering directorate at Livermore. A director's review committee is a responsibility that discharges part of the contractual obligation that the university has with the Department of Energy to review each of the major programs and give grades to these programs.

Let's see. Another association that I've had that really was born of my work in the president's office and earlier work as dean is membership on the National Academy of Engineering Task Force on diversity in the engineering work force. Interestingly enough, when I was still in the president's office, I was asked to attend a meeting at the Beckman Center in Irvine. The task force met there. I was not a member at the time. I was asked to come and make a presentation on the status of K-12 education in California and the issues of diversity in K-12 and in college-going from different demographic sectors in California. I made that presentation and talked with people there. At the time the task force was chaired by John Slaughter, who at one time was president of Occidental College and is now back in New York in a different capacity. At any rate, I was asked after that to join the task force, which I did. They had not asked me, they thought I was too busy, they said. So I was happy to say well, I'm going to be changing my job; so I'd be happy to join. So I'm still active with that group. Then finally the situation at Berkeley changed dramatically [laughs] after I returned from the president's office. I guess, someone found out I was no longer down in Oakland although lots of people still think I'm there. [laughter] Although, ironically--

LaBerge: Maybe you still think you're there.

Pister: No. I don't know if this should go on the record or not, but when I left the president's office, there are all kinds of different technical terms I guess in university personnel administration. After all, I had already retired once. My retirement is from Santa Cruz so that certain things that come to me that have to do with benefits and all come by virtue of Santa Cruz. But then when I was reemployed, recalled for part-time employment in the president's office, a new set of conditions was established which were terminated on June 30, 2000. Well apparently, when the president's office terminated my appointment, the recall appointment, whether deliberately or inadvertently, they terminated my employment at Berkeley. Of course, I wasn't employed at Berkeley, but somehow I was still in Berkeley, but this pulled me out of the system. So as far as my department and the Berkeley campus was concerned, I didn't exist anymore. [laughter] Just last week our personnel assistant said, "You know, you're not on our books. We've got to find you." [laughter] So she discovered from the president's office that they had wiped me off the books completely. So by coincidence, this morning, I had to go in and sign, you can't believe, a whole stack of forms to prove that I still exist, that I should be back in as a retired member of the Berkeley faculty.

Berkeley Campus Activities

LaBerge: Yes. You're not maybe on the Academic Senate list or any of those mailings, or--?

Pister: Yes, I am. I've gotten stuff from the senate. But--I don't know what I'm not getting, but anyway it was an amusing coincidence. But anyway, so at least some people knew I was back here, and the first person that really got hold of me was Don McQuade. I think perhaps in getting back at me for being a big supporter of him for the vice chancellor's job. Don recommended, I guess, that I be on the Honors and Awards Committee, which I've been on since I've been back.

LaBerge: Meaning Berkeley Citation and that kind of thing.

Pister: Berkeley Citation, Distinguished Service Award, Berkeley Medal, those honors that are conferred by the chancellor. That's been an interesting experience. Then last year this very same Don McQuade, vice chancellor, my friend, asked me, said he was going to recommend--because he didn't make this appointment--he was going to recommend me for the position of faculty representative to the Berkeley Foundation executive committee. By virtue of that appointment I'm also a member of the Berkeley Foundation board of trustees again, having been in the same role as a dean at one time. So I attend the meetings of the executive committee and the Berkeley Foundation trustees as well. That's interesting because it's a critical part of the resource base of the campus. That's interesting now to look at from my experience at Berkeley and my experience at Santa Cruz.

I'm not entirely sure how this happened, but this last spring, I guess, early in this year I had received an unexpected email from the Committee on the Status of Women and Ethnic Minorities--this is a Berkeley division committee now--asking me if I would serve on that committee. I must have in a weak moment checked that in a--

LaBerge: As an interest.

Pister: As an interest somewhere in getting some form, and an opening appeared. So I've been really willingly and interestingly involved with that committee, which meets on a regular basis and which has a very important role to play at Berkeley in my view.

LaBerge: So this is an Academic Senate committee.

Pister: Yes. Berkeley division Academic Senate. Yes. It's given me a chance to meet some new faculty members that are much younger than I. [laughs]

LaBerge: Well, it's important for them to meet you, too.

Pister: Yes. I have to say I think I've helped them at a critical point when the committee had to comment on the strategic plan of the campus, and I played a major part in getting a committee perspective respected by the drafters of the strategic plan. Then finally I'm serving on the provost's Advisory Committee for the Interactive University.

LaBerge: And this is the Berkeley campus provost.

Pister: Yes. This is a project that seeks, through a web portal, to make the Berkeley campus and its infinite resources available to the rest of the world, but primarily aimed at students and teachers and parents in K-12. This is a role that I had previously when Carol Christ was provost and I was in the president's office. I served on her advisory committee, and now Paul [Gray] has asked me to rejoin the committee under his mentorship.

LaBerge: Is this the same as NEXUS, or did it start as NEXUS?

Pister: Actually, this interactive university project predated NEXUS. I think I talked about this. But when we created NEXUS in the president's office, we turned to Berkeley and David Greenbaum, whose name I mentioned, who directs this project for the provost. We turned to them to really be our main source of information and indeed for the human resources that were needed to make NEXUS a reality. It came from Berkeley, from David and his staff. So what happens next I don't know. That's where I am today. Whatever time is leftover, I use in my garden at home. [laughs] I spend time in my garden, and Rita and I travel, but not as much as we might like to.

GTU and Church Activities

LaBerge: You mentioned just in passing the other day GTU. Are you involved in anything at GTU? Or do you want to mention any other kind of church activities?

Pister: Let's see. Our connection to the GTU is primarily through the Jesuit School of Theology, JSTB as it's called. In fact, we just attended a dinner there last week. We're benefactors of the JSTB, and therefore stay in touch. This was largely a consequence of a long-time faculty member at JSTB, Dan O'Hanlon, who was a very close friend and kind of spiritual advisor to our family and wonderful man who was regrettably killed in an automobile accident prematurely.

LaBerge: You spoke about him before.

Pister: Yes. I did. He was a wonderful person. Anyway, Rita took a class from him at the GTU years ago. It's not that somehow we think the Jesuits are the end of the world, but it was sparked through Dan. Actually if anything, I think to speak personally about this, we're much more comfortable with Franciscans than we are with the Jesuits.[1] Their spirituality and their whole community is so different, so that we're torn between the two. Two more different people would be hard to find, Francis and Ignatius, I think. [laughter] They were very, very different people with different ideas about the world, which doesn't mean that one's right and one's wrong.

LaBerge: No. I note that one of your sons is named Francis, and none is named Ignatius.

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1. Note added June 13, 2003: In May 2003 I was invited to become a Regent of the Franciscan School of Theology at the GTU and I accepted.

Pister: That's right, yes. [laughter] And in fact my own confirmation name is Francis. That was largely a result of having read the biography of Francis by Jorgensen, which is I think a classic biography of Francis of Assisi, and a beautiful book. Then, I think I've mentioned that over the years Rita and I have been to Assisi; I think I've been there three times and Rita four times. So it's a very favorite place.

I should perhaps mention here too that, in the same year of my retirement in the president's office, in fact on September 23 of 2000, a group of my students, most of them my Ph.D. students but some students that I had simply worked with at Berkeley, got together and created an evening at the Claremont Hotel. This was September 23, 2000, called Pister Blue and Gold. I don't remember exactly how many people were there, certainly well over a hundred including President Atkinson and his wife, Rita. Many of my colleagues, and indeed two of my colleagues and their wives from Italy came just for the event. It was a wonderful evening. Four or five people gave brief glimpses or sketches of their interaction with me over the years.

LaBerge: [laughs] Do you remember who?

Pister: No. I could reproduce--I have a program. In fact, I'll have to put that in the oral history, because it was a beautiful evening. I think I've already mentioned that the Claremont was a very special place in that Rita and I used to dance there a lot. But the other thing that was really wonderful about the evening, and again, I can put into the record, was that, I think my son Kris was the composer of this, but he had amassed a database that listed all of my Ph.D. students, that's thirty-two. He created this huge banner that went around the walls of the dining room where we ate, and he listed all of my students, the titles of their dissertations and their students, and in some cases their students. So that the whole family tree, which I have electronically, that we can make a part of the record because it's a rare example of where you can put together [laughs] a lot of information that's all tied together. So that event was designed to commemorate my seventy-fifth birthday and my fifty years in the University of California and our fifty-year marriage. So it was a fifty/fifty/seventy-five. It was a very warm and beautiful evening for us. And I should not forget that I was really honored to have President Atkinson hang the presidential medal around my neck on that evening.

LaBerge: Oh, how wonderful.

Pister: He had told me he wanted to give me the presidential medal for the work that I'd done in the president's office, so he used that occasion. I also received on the same evening the presidential award given by the president of the American Society of Mechanical Engineers in the person of Bob Nickell, who was one of the organizers of this affair. Bob was just the outgoing president of this international ASME organization. I taught Bob several classes while he was at Berkeley. He didn't do his Ph.D. with me, but I was also his advisor when he was an undergraduate, and I employed him as a research assistant as well. We, over the years, he and his wife and Rita and I have been close friends. In fact, when he and his wife were preparing to be married, we helped them. He was not a Catholic, and we found a Jesuit [laughs] who would properly instruct them like in the old days.

LaBerge: Yes, when you had to do that.

Pister: When you had to do that before they could get married back in Rhode Island. So we've been really close to the two of them. I think that pretty well nails down that part.

XIV. PEOPLE: THE MOST IMPORTANT PART OF LIFE

Family

LaBerge: Okay. Well, should we turn to people then?

Pister: Yes, if I can find my notes on people.

LaBerge: I'm not sure where you want to start with the people. Do you want to start with your parents?

Pister: Yes. I think I'll try to do this in some kind of chronological order. I think it's very important to set aside a section that just talks about people because I remember speaking about this in the last few years on several occasions. In fact both were occasions of awards that I received. One was back in Nashville, Tennessee. In fact, it was the American Society of Mechanical Engineers applied mechanics division, which awarded me, quite by surprise, their division award for my contributions as an applied mechanician and engineering educator. It was Bob Nickell again who was then at the time president of the organization that gave me the award. When I gave a brief talk after receiving that award, and then certainly again when I spoke at the Blue and Gold party at the Claremont, it just had been so clear to me that over my career in the university the people that I have worked with are the important thing. I think on both occasions I've called attention to the fact that I couldn't possibly go down my list with my Ph.D. students and even tell you what their dissertation title was or what papers we wrote together. That's all kind of just passed through my mind. But I think without any difficulty I could sit down and write the names of all these people and tell you a lot about each one of them. And that goes back, not just to my UC years, of course.

So if I go back and try to understand my own life in terms of people that have influenced, at one point or another, what I have done or who I became or what I did right or wrong, I think it's useful to do that. Obviously, I would have to start with my mother and father. The recollection that is probably most enduring is, of course, the tremendous affection and love that they provided, that stability and that incredible caring that nurtured a sense of responsibility in turn. Certainly, looking back at my early life, there's no question that my behavior was probably more constrained by my fear of what my parents would feel

about something that I did rather than anything else. It wasn't some moral code over here or there, but it's what my parents felt. They were tremendously supportive. From the beginning, since they were both teachers, there was an unmistakable message that the most important thing for me to be as a young person was to be a good student. That was absolutely the case.

[laughs] I remember my high school years. I had a desk, remember I lived in an old Victorian house, and so there was only one room that was really heated and that was what we called our dining room. I had a desk in that room, and my father had a chair over in another part of the room, and I'd do my homework there so he could keep an eye on me. [laughter] He composed a lot of his own projects in that chair. But I would work there, and anything to do with mathematics my father dealt with, even though he had never taken calculus, alas. But he knew algebra and geometry inside and out, so well that when I was in high school, I think in one geometry course I only missed half a problem in homework the whole year, thanks to him. He also at least for the first year helped me with Latin because he had had Latin in high school. So that was my dad's contribution.

My mother helped me with literature and English. She was a great one to help me invent--I don't know what your recollection is, [laughter] but inventing the title of a composition in high school was one of the most tortuous things. Write about--you know, this and oh, my God. This still has such a strong memory for me. I remember once, I think it was in my freshman English, I wrote a composition, thanks to her idea, using what was his name, Maeterlink and the bee, the history, the story of bees as Maurice Maeterlink, I think was his name, wrote a book. So I wrote a composition on bees, and of course, I used that composition several times during my high school days in different classes [laughter], and I often wondered if teachers didn't get together and say, "Well, I've seen that composition now for the second or third time." Anyway, but my mom was really great on giving me ideas and even doing early drafts of compositions that I had to do. [laughter]

LaBerge: Oh, <u>now</u> it's coming out.

Pister: Yes. As I mentioned, I grew up in a home where my parents and my mother's mother lived. She had a kind of an apartment in part of the old Victorian house. So she would eat with us every evening. At the time I probably didn't understand it, but as I became much older, I saw the benefits of an intergenerational experience, and of course, my grandmother was there to take care of us when my parents were away. My younger brother Phil, my only brother Phil, arrived three and a half years after I was born, and it's interesting what recollections one has from your early childhood.

The only recollection I have, I think prior to going to school when I was six, was the visit to the hospital to see my brother and my mother when he was born. I still remember seeing my mother and brother in the bed, and I ran immediately to my grandmother who had gone with me. Isn't that a curious reaction?

LaBerge: Right. Well, he took your place.

Pister: Yes. Exactly. Yes.

LaBerge: Maybe to you it looked like someone else was in your spot.

Pister: It was an insecurity that was reflected in that. But anyway, my brother Phil who, as I say, is three and a half years younger, over my life has been a wonderful brother. I mean, until I went away to Berkeley, we did everything together. He worshipped me, unfortunately, as younger brothers often do.

LaBerge: [laughter] Has it continued?

Pister: Well, he's still, extremely proud of me and respectful. He came to Berkeley, and I helped him choose his major, so I feel good about that. He's an environmental biologist and has led a very different life but has always been very close to me, and I'm pleased, that has not changed a bit.

In my early childhood when I was still living at home, my mother's brother, Paul, I think had an influence on me and that continued even after, a few years after I left and went into the armed forces particularly. His name was Paul Stark Smith, and he was named after his father and my middle name of course is the same, named after my grandfather and--

[48A]

Pister: --he stayed in the army reserve, and indeed he was recalled in World War II and interestingly enough, when I was on the island of Okinawa in the Seabees, he was doing transport duty, taking troops back from Japan to the United States. He was a transport officer on a ship, and he came into Buckner Bay at Okinawa, and I met him there. He came and had dinner one evening at our officers' mess. Anyway, I mention this because Uncle Paul was, I think, someone who really made me appreciate the armed forces, and he was very proud that I was a commissioned officer in the navy and encouraged me a lot. In fact, I still have a briefcase that he gave me when I was commissioned. He said, "You're going to need this to keep your official papers in." He also managed the farm for my grandmother during the years I was growing up, and had a stable of horses. I learned to ride, and he was very encouraging on teaching me how to be a farm boy essentially, even though he worked in town most of the time.

Among my uncles, well, he lived next door so I saw him more often. The only other uncle that I really had much contact with was my father's older brother Carl. Carl Pister lived down in the city of Orange, but we saw him almost every summer. We'd camp together in the--

LaBerge: In the Sierra?

Pister: In the Sierra, yes, at Tuolumne Meadows. He was a great fisherman and hunter, and he and my brother and I and my father often would do fishing trips together. So I got to know Uncle Carl quite well. These contacts basically gave me an appreciation of different things in life, is what I'm saying I guess, over the period of my youth.

Rita

Pister: In looking further now, the people that chronologically, that came into my life that influenced me one way or another, I guess the next person actually on the timeline would be my wife Rita whom I met in March of 1947, I believe I mentioned once earlier on.

LaBerge: At a dance.

Pister: At a dance, right, and surely that was, well, an extraordinary event in my life. I don't think I've mentioned this to you, but I ran across a really great country western ballad that expresses this. I can't remember who the artist is, but it's called the "Keeper of the Stars," and when I heard that first it just fit perfectly. I can't of course recite the words, but maybe I'll play it for you. The line that I really connected to was, "He sure knew what he was doing when he joined these two hearts." It wasn't a coincidence in other words. It was a beautiful expression of the guiding hand of a force beyond us that brought us together. So Rita was at the time and has been the major force in my life. When I look back on, what does that mean? Well, it meant that she gave up her career. She was a teacher. Well, she changed the venue of her teaching [laughs] from the classroom to the home, because she did not return to work outside the home but preferred to do harder work at home for no pay. [laughs] These are but expressions of the gift of unconditional love, which she so generously gave me.

But in addition to opening my eyes to ultimately what became the faith that I embraced and being the mother of our six children, I think the other thing that I owe her so much for is her willingness to give me the time to do my professional life, which at times, was, I think, a terrible strain on her. At least for me, it was always an easy rationalization, "Well, I have to do this to be able to provide for my family. I've got to go to this meeting, I have to be away from home, I have to leave the kids and my wife and do this or that." And when I look back on that, it's something that tears at me because I know it put a tremendous amount of responsibility on her. Indeed, it's something that particularly in my later years as a faculty member here with my own students, I try to convey to them. I said, "For heaven's sakes whatever you do, don't put your family second, because you're only going to go through that once in your life and be careful about that." So I owe her a great deal for the burden that she assumed, including my taking off to Europe at times when I shouldn't have and things like that.

Faculty Mentors: Egor Popov, Henry Langhaar, John Whinnery

Pister: Looking at Berkeley, there are really, in terms of chronology, two people. The first, I may have mentioned already--first he was my supervisor when I was a teaching assistant and then later my teacher and ultimately my colleague, Egor Popov. Egor was a tremendous influence in my life. He opened up whole new vistas for me as a teacher, as a colleague when I was first teaching here before I got my Ph.D. He was an incredible mentor to help with things like creating examinations [laughs] and how to teach the subject and things. He was just a wonderful role model because he was, right up to the time of his death just

a year or so ago, he was a wonderful teacher. And he was certainly the person that was mainly responsible for me leaving Berkeley to go on for my Ph.D. in 1949.

LaBerge: Did he advise you to go to Illinois rather than staying here, or just to go on?

Pister: Well, he advised me to go on. He didn't try--because at the time the field that I thought I was going to go into was not something he was interested in, so that wasn't it. No, he just encouraged me to go on. I was very fortunate in that coming back when I joined the faculty in 1952, he was very generous in allowing me to share his graduate courses, and he wrote letters for me; I'm sure at every one of my promotions he was involved in it. I know he was involved in recommending my appointment to the Miller Institute for Basic Research. He was always there when I needed a senior person to run any kind of interference or give me any counsel, a wonderful person. And I think I mentioned already that I had lived in his house one summer [laughs] and helped him write a book. And fortunately, then when I left Egor to go to Illinois for the three years I was gone--again it's just amazing how these things happen, he actively supported my appointment here.

I met and then ultimately worked with a professor at Illinois by the name of Henry Langhaar, who at the time I arrived was at the advanced age of forty years. [laughter] I would have been twenty-four at the time, so I don't know why I thought forty was so old. But Hank Langhaar was absolutely the best thing that ever happened to me for my graduate work. He was a superb scholar and a wonderful teacher. He made material just come alive in the classroom. But he was a really decent human being. I was a half-time instructor at Illinois, and there were private offices next to us (I shared an office with three other graduate students). His office was right next to ours so I saw him fairly regularly, and he was very appreciative and very understanding of problems of students. So he just set a tremendous example for me as an academic. I learned the meaning of rigorous scholarship, and he had a wonderful sense of humor as well that I think helped rub off on me as well. I was really very pleased that I had a chance to attend a special symposium for him in 1978--after I guess he had retired at about that time--joining with a number of colleagues back at Urbana. I guess that was the last time I saw Hank. He used to come out from time to time back in the sixties and seventies. One of his daughters lived out here and he would come out. So we saw him on a number of occasions and had dinner with him when he was out here. But Hank was really a major influence in my life as a graduate student.

When I came back to Berkeley, I've already mentioned Egor Popov as being really my champion. A person that I turned to a number of times when I was in a position to make a decision about what I might do next was a senior colleague in electrical engineering, John Whinnery. I know John has been a mentor for countless people over his life. John was, I know, responsible for a number of my appointments over the years at Berkeley. But he always was willing to sit down and talk to you and give you the best advice that he could about whatever issue it was. The one I remember perhaps most vividly is the time that I was thinking of going to Irvine to be dean of engineering at Irvine. I went to talk to John and he said, "Well, there are plusses and minuses," but he said, "If you want to be a dean, don't rush it. There will be opportunities here." [laughter] And indeed nine years later there was.

LaBerge: Do you think he had something to do with that, that you became dean here?

Pister: I don't, I don't think he was on the search committee, but certainly if anybody asked him, he--

LaBerge: He would've said--

Pister: He probably would have said so, yes. He was dean for four years in the 1960s. He didn't enjoy the job at all, and he got out as quickly as he could. [laughter] But I remember, after I was dean one time, I had some kind of an issue with his department, electrical engineering and computer sciences. I was having a tussle with the chairman over resources, I think. I remember I asked John to come in to talk to me, to give me some counsel, and this was the only time I ever saw John get a little bit energized over something in a private conversation like that with me. And I said something that obviously wasn't right, and he said, "Well, now if you say that then I'm going to get upset, too." [laughter] In other words I was blaming the department chairman about something, it had to do with the way they calculated their workload or something like that, and he obviously agreed with the chairman and I didn't. So he really let me know, "No, don't go that far."

Billie Greene

Pister: Anyway, looking at the line of people, certainly the next person in terms of influence at Berkeley would have to be Billie Greene. She and I met in June of 1980 after I had been appointed dean, but it hadn't become public yet. I think I mentioned this earlier. There was a dinner celebrating the dedication of the Bechtel Center, and Mr. Steve Bechtel, "Old Steve" as he was called in a friendly way, wanted to meet the new dean. So I had to go up to his table and I thought everybody knew what was happening, and they probably did. Anyway, I met Billie that night, and we exchanged friendly greetings.

LaBerge: And what had she done before that?

Pister: She was the secretary to the dean of engineering. Well, anyway, so Billie and I then, since I took a sabbatical leave for the last part of 1980 and didn't really start in the dean's office, actually occupying it until January of '81--although I had dealings with the dean's office in that six months--we started to work together in 1981. She was from the beginning an absolutely great person to work with and a person that I subsequently worked with from 1980 until 1996 when I left Santa Cruz.

LaBerge: Because you took her--or she came with you to Santa Cruz.

Pister: Right. Because here's what happened. One of the first recollections, two things that I remember during those early years. The first recollection I had after I came in the dean's office, I came in one day and started pawing through the mail in her office, and she just told me flat out, said, "No. You don't do that." [laughter] "We look at the mail and tell you when it's time for you to look at it," in a polite way, but she made it clear that there was a process. She was very much of a process person. So she straightened that out right away.

The next crazy thing that happened during this first year, our son Kris was at Acalanes High School at the time, had a term paper due, and I don't know, it must've been in literature, and he did a study of Kurt Vonnegut and had the draft of the paper, but it had to be typed. Well, one of his sisters who was living at home at the time said, "Well, I'll type it." Well, for some reason she didn't type it. So the paper was due, and it wasn't typed. So here I am, the new dean coming in with a new staff, and I just came in to Billie Greene and said, "Billie, I know this is an unusual request [laughter], but we've got to have this paper typed up and back to Acalanes High School today." Bless her heart, she took the paper, distributed to the different people in the office, and they all flew at it and typed the paper, and I think she took the thing out to our house to be delivered.

LaBerge: Is this first revealed in this oral history?

Pister: I think so. Well, she knows it and Kris knows it and--

LaBerge: [laughs] And now all of the students will know it.

Pister: Yes, I think he got a very good grade on the paper as a matter of fact, but that was a real test of loyalty very early. She must have wondered who this guy was. Well, at any rate, going back to Billie. I quickly saw that she had qualities that were such that she could do a great deal more for me than just be my secretary. She had excellent common sense to start with, which is kind of in short supply in many places in the university, if not in life more generally. She was a superb judge of people. She could size up people very quickly, very accurately. She was a stickler for form, and she knew that I was the same. And in general just a very creative person. So I asked her, I said, "Billie, I could multiply myself in this job substantially if I had an executive assistant that could really speak for me in a lot of things and handle a lot of the affairs in this office without me getting involved in them." I said, "I'd like you to take that position." Well, she was at the beginning reluctant to do that. I think it was partly reluctance born of the fact that while she was experienced, she was a Secretary III or whatever they called the top secretary level, but she was a bit insecure in that she was not a college graduate--but a very, very intelligent and wise person.

So I prevailed on her, and we got the position reclassified, and she was made assistant to the dean, and I moved her into an office next to me out of the general reception area. In that position she was responsible for all of the staff in the office as well as being my executive assistant. It must've been in the last eight years or so, I probably did this the second year--either in late '81 or early '82, I've forgotten now, she took on that responsibility. It made a huge difference and very quickly people learned that she spoke for me--she knew very clearly when she could do that and when she couldn't do it, she had a great instinct for that. So that lots of the interchange with department chairmen would go through her, or the other deans--I had I think seven deans, six or seven assistant and associate deans in engineering at the time to cover all of the bases. She was extremely good in that job.

She organized the agenda for my advisory board meetings, all those sorts of things. Plus the fact that she and I developed a very, very--I'll have to choose the words right--a very deeply rooted, sincere, and I'd have to say beautiful, personal relationship. If there's such a thing as a platonic love affair, I think this is how it is expressed. We had very similar values, even though we were very different people, we had very different backgrounds--

by coincidence we both came from Stockton, oddly enough, but she had had a very different childhood from mine. In spite of all this, we were two people that were just meant to work together. So that when I was asked to go to Santa Cruz, she was then the executive assistant of my successor David Hodges. I remember visiting Billie in her office, in, must've been early March '91 because I had already decided to go. So it would've been early 1991. I went in to talk to Billie and said, "Well, Billie I don't know if you know, I'm going to go to Santa Cruz." She said, "Well, I'd heard rumors of that." So I said, "Well, will you come, too?" And her first reaction was no. [laughter]

LaBerge: Because she must have lived here, in the Bay Area.

Pister: She did. At that point she was no longer married. She was a divorcee. She had a daughter, but her daughter was grown already, I mean old enough, in her twenties at least, I think she was going to school here in fact. But her first reaction was, "No, I don't think I want to do that." I don't remember how long it took, but subsequently she called me and said, "Well, I've changed my mind. I will go." So I went down to Santa Cruz in August of 1991, and she arrived in September and--

LaBerge: That really is something, because she had to move. She had to change her life to--.

Pister: She had to find a place to live, she had to leave all of her friends here, and she was taking on a whole new responsibility that was unknown to her, just as it was for me. The fact is, without her--particularly in the early years--[laughter] I don't know if I could've made it or not, because I think I've said, I might have said earlier, that she was the only person that I knew, and therefore could trust completely, because everyone else was new. And it took me a while to build up the trust and mutual respect of the people that I had to work with down there. So she was an absolutely critical part of my life from the time I met her in June of '80 until July 1996.

So we've remained close friends--she stayed on for a brief time with Chancellor Greenwood, then she moved over into a position in University Extension in Santa Cruz. She stayed there several years and then took early retirement to pursue what she's always wanted to do. While she was at Santa Cruz, she became credentialed in teaching English as a Second Language, and so she went to Thailand and taught English in Thailand for a while. She's taught in Mexico, and she loves to travel around the world and travel like a native. So we've kept in touch--she certainly has been an absolutely vital part of my career in UC, a person that I have an enormous respect and love and admiration for, for what she's done.

University Presidents

Pister: As I think along the years in the university, the people beyond the Berkeley campus that I've interacted with--I've mentioned from time to time that perhaps I could collect some thoughts again. Certainly, I think I worked with either four or five presidents in one capacity or another. I guess it's five. Dave Saxon was the one that I probably worked with the most as a faculty member because I was the chairman of the Academic Council. I really got to know and respect and like David Saxon immensely. He had a great wit. He

loved an argument. And he was absolutely straightforward. His record shows that. He was one of the loyalty oath casualties as you remember. I had great admiration for him as a man of principle and not afraid to speak out. [laughs] I think I talked earlier in this history about the way he took on Governor [Jerry] Brown at one time. So David was a wonderful model, and I remember coming back from Sacramento in his car one evening when I'd been offered the dean's job at Berkeley and I asked him about it. He said, "Well, if you do that, you're going to change your life, if you go off and be a dean. But that's all right. You know, some people have to do it." [laughter] It was very equivocal.

The second person--and I've mentioned him extensively already, a person that certainly I interacted with a lot in different capacities was David Gardner. I have enormous respect for David. I've already talked about some of those experiences I've had with him early on when he was a vice president and then later when he was president in a number of different capacities. I shouldn't forget here that it was David Saxon that asked me to brief Dick Atkinson and Tomas Rivera about the Academic Senate so that the next person that I'd talk about would be Dick Atkinson. I met him--

[48B]

Pister: I met Dick in that hour-long briefing that I gave him on the shared governance in the university back in the spring of 1980 before he came into the UC, or at the time he came into the UC system.

LaBerge: Where did he come from?

Pister: He came from the National Science Foundation, he was director of the National Science Foundation. For reasons that are not entirely clear, Dick and I became very good friends. Dick seemed to take a liking to me. When we were both chancellors together under David Gardner and then later under Jack Peltason, Dick often called me, and we'd talk about things going on in the president's office, and he'd ask, "Do you know what's going on in Jack's mind?" [laughter] So he and I became kind of fast friends as chancellors together. So when he became president I was very pleased because I knew he would be a good person to work with, and certainly the four years that I spent in the president's office, in terms of my relationship with Dick, bring back very fond memories.

Dick Atkinson is, I think, if not *the* brightest, one of the brightest people that I've ever worked with, in terms of his ability to understand something quickly and to move on to the next step. I don't know how many times I've been in conversations with him or observed conversations where someone's talking to him, and he's already filled in the rest of the statement, wondering what's going to come next and is anxious for, "Let's move on now. I've already got that part." He has an amazing intellect and is just a superb guy to work with, just a wonderful colleague.

In between David and Dick, of course, the president that I worked with was Jack Peltason. Jack and I, of course, were fellow chancellors under David Gardner, so we got to know each other that way. I remember I met Jack first when he was chancellor at Irvine and he was looking for a new executive vice chancellor in the person of Chang-Lin Tien. So we had breakfast one morning down at the Beckman Center in Irvine, and he asked me about Chang-Lin, what could I say about him and his appointment as vice chancellor. I should have mentioned also that when David Gardner was finding a chancellor for the

Berkeley campus, he had a long talk with me about Tien and whether or not I thought it would be a good appointment.

LaBerge: We should say, you know him because he was in engineering with you, he was a colleague, is that right?

Pister: Tien, yes. Chang-Lin was department chairman for a brief period when I was dean, and then he became vice chancellor for research here. So I dealt with him as a dean when he was vice chancellor. He used to, in an offhand way say, well, that, "Karl was my boss when"--he'd say, "Karl was my boss," when I was dean, he was department chairman. [laughter] Anyway, so I met Jack early on, and then we were chancellors together and had a good relationship. Jack was president of the university at the time I was inaugurated--or invested was the term we used, we didn't inaugurate during those dreadful black days--and Jack and I were involved in a number of incidents over our tenure as president and chancellor. I think I've mentioned the incredible investiture when the protesters were there.

LaBerge: Oh, yes, and thankfully you had a Native American--

Pister: Yes, I had the Native American there to give the invocation. Then the other one was the sale of the Miller redwoods property, when Jack and I were involved in that. Of course, Jack and I had the misfortune of having these positions during the worst budget years the university's ever experienced, in the early nineties. Jack handled that beautifully, I think, given the circumstances. But he was always a person that had a quick phrase, [laughs] a tremendous, highly developed sense of humor, and just a wonderful person to work with. You just couldn't get mad at Jack no matter what happened, whether you disagreed with him or not. So it's been a wonderful cast of colleagues in these years that I've had. I'm sure that there are others that I have forgotten. But in the time I've had to think about the people that really impacted me the most, those would be the ones.

Chancellor Charles Young

Pister I should say, one other person in my chancellor years that I actually didn't have a lot of interaction with, but I had a chance to observe and to listen to and to watch and thereby gain a great deal, and that was Chancellor Chuck Young at UCLA. Chuck was the person that brought the greetings of the chancellors to my investiture ceremony. He's a very impressive, tall man, and when he walks into a room, he takes over the room. So his imposing presence was good at that meeting. But I watched Chuck over the years, the five years that we served together on the Council of Chancellors and at regents' meetings and other venues. And I really admired his style, the way he had UCLA organized, the way that he presented issues, his incredible knowledge of the University of California. I think he knew more about the university than almost anybody else in the senior positions.

He had a lot of mentoring starting with Clark Kerr. He was in on the early days in the sixties when the major expansion of the university took place. So he was involved in the master plan process, the planning of new campuses up here in the president's office, and then very early on Chancellor [Franklin] Murphy brought him in to the administration at

UCLA and groomed him to be his successor, as far as I recall. So Chuck was a wonderful model of how to make a campus go.

He was also absolutely fearless in the presence of the regents. [laughter] I still remember, and I don't think I've mentioned this incident, but it expresses my admiration for Chuck. UCLA celebrated its seventy-fifth anniversary, and they invited President Clinton to the anniversary party. When you invite the President of the United States, there is a fair amount of security involved. So I think UCLA had to spend something like $300,000--did I talk about this?

LaBerge: No.

Pister: In additional security for the event. Well, this did not escape the attention of certain Republican regents so that at a meeting later on somebody on the board asked him for an accounting. How was it that you spent $300,000 of university funds on this president? I can't remember what Chuck said, but he made it pretty clear that that was his business, and I don't know if he said this, but he certainly imputed this, "Would you have said the same thing if it had been a Republican president that came out to UCLA?" [laughter] It was a perfect example of Chuck Young, who often made his points in Council of Chancellors meeting by suddenly getting up from the table and walking out the door [laughter] and then subsequently returning in through another door. He had great style. He was a real theatrical person at times, but someone that I really respect.

Graduate Students

Pister: There's another group of people that I can't talk about by name, but certainly in terms of people that I worked with and laughed with and cried with over the years have been my students. I'm extremely proud of the graduate students that I had, the ones that did their Ph.D.s with me especially. Every one of them was unique, of course, in one way or another, and I had different degrees of personal engagement with each one, but certainly as a group I learned a great deal from them, and they learned from me. My feeling was that if one of these students when he finished didn't know more about the subject than I, then I had failed him really. I remember having a big argument with a German colleague over that same issue who had quite the opposite view, that none of his students could ever surpass him, but I felt quite the contrary.

The interesting thing is as I look at that, it shows the change in culture over the period that I've been a faculty member and the period that my son now is engaged in. I had no women graduate students. I didn't even supervise a master's thesis of a woman in engineering. Whereas my son has already graduated a Ph.D. at UCLA, a woman. I had no minority graduate students, no underrepresented minority graduate students. I had a number of Chinese Americans, and some Chinese in fact, but it shows that I grew up in a different period of history, and that's changing now.

There is one woman student that I should mention here because she's kind of special, and her name is Connie Carroll. I had developed for reasons that are not entirely clear [laughs] an enduring personal relationship with Connie. She was a transfer student from

San Diego State that came here in her junior year and took a junior course from me. I think she struggled a bit, but she did okay. She did, I think, a B plus or an A minus, something like that. But for some reason, she and I became very much engaged in what her future would be, and she'd turn to me for advice and all, and I followed her after she left the university. She worked for a while, and then she went to Stanford and got an MBA at Stanford and was an assistant to the dean of business down there, and just was a very bright, entrepreneurial young woman. Indeed she somehow met and for a brief period was a friend of one of my daughters, Jacinta, who ultimately went on to Harvard for her MBA. So they talked, because I think my daughter was applying to Stanford and Harvard at the time, and she was trying to get into Stanford as well, and Connie knew the ropes there, and that's how they got acquainted.

Anyway, Connie got married to a Swiss, and she and her husband have moved all over the world. They've lived in Mexico; they've lived in Spain. They now live in Italy, and last year my wife and I visited them in Milan, and she's been a tremendously loyal Berkeley alum, and she holds alumni events over [laughter] in Italy and just is a really good person, very bright person. She taught in Barcelona when they were in Spain, in international business. She's now teaching at the University of Helsinki, an international business course. So she's such a very special person and such a wonderful example of what a talented Berkeley alum can do. Among all the undergraduates that I dealt with, she has to be probably the one that is most famous, if not notorious. [laughter]

Teachers

Pister: What I'd like to do now is go back in life and talk about some of the teachers I had before I came to Berkeley, because I've left them out of this chronology, and because in many ways it's those teachers in the first twelve years of education that are responsible for what happens to you, I think, academically.

LaBerge: You once spoke of, I can't remember her name, but you wrote her a letter on her retirement.

Pister: Yes, I'll mention her again.

The first teacher, not surprisingly that I remember, is my first grade teacher, and her name was Nan Sykes. Oddly enough I still remember her name. My recollections of her are three-fold. I still have a vague picture of her on the board with a big strip of paper, pointing to sounds that we'd have to sound, teaching us phonics. Out of all the recollections I remember that. Then I think I've mentioned this too, that she created a rhythm band for us in the first grade, and I played in the rhythm band, and it was her creation that made that possible. The other thing that I remember is that, I may have spoken about this already too, her sensitivity to children in my having to be dumped off early or let off early in the morning because my father had to go to school before the school opened. She said, "Well, you can come in and sit in the room."

I remember one morning going in the front door of a school, which, of course, for a student was absolutely "verboten." You had to go in the back door, which wasn't opened.

So I went in the front door, and the vice principal was a giant man whose name was Spade. It just sounds like a brutal name to start with. He said, "Where are you going, kid?" or something like that, enough for a six-year-old to be blown out of the door. So she made a special little pass for me that I could show to anybody that would [laughter] show that I wasn't an intruder, to go in. Anyway, so much for Nan Sykes. She lived a long life. My mother and father used to see her at retired teachers meetings. So I have fond memories of her. She gave me a good start.

The in-between--then I changed schools. I think I mentioned that. The next teacher that I really remember well was a sixth grade teacher in the school that I moved to. Her name was Marie Meyer. I don't know why, I think she was a very tough, strict teacher, and it was a classroom in which we had low and high sixth grade, and I was on the left hand side in the low sixth grade, and the high was on the right hand side. Some time during the year she said, you move from here to here. So I skipped the lower sixth grade. [laughs] I remember something about that they were doing measurements of volume, pints and quarts or something like that. Isn't that strange that that recollection comes back? But she was a really tough teacher, and I remember one of the things she made you do was give short oral reports on a regular basis, and you would have to stand up in front of the room and talk about something, and I remember how painful those things were. But anyway, it was Marie Meyer.

The next person was my eighth grade teacher, the one and only male teacher in the first eight grades. He was also principal of the school. John MacDonald was his name. I remember John teaching arithmetic to us and particularly mental arithmetic that we had to learn, and then--[laughs] this is totally disconnected, I can see him writing the, is it, what are those famous words, ["The bugle falls on castle walls"?]--

LaBerge: I don't know this one.

Pister: Is that a Robert Burns? I don't know. Some poem that he was writing on the board that we had to learn. I'll have to ask Rita, I think she remembers it. But that's it, [laughs] I don't remember anything else except he was a male teacher and principal of the school.The other teacher, another teacher whom I've already mentioned as well, my chemistry teacher, the teacher whom I must've embarrassed beyond all realm of possibility, Emma Hawkins, who took me to see Joel Hildebrand. But she certainly was an inspirational teacher. She gave me a slide rule that I still have to this day, a slide rule that I used all during my college years here, and I'll give to one of my grandchildren one of these days because it has the initials of one of my grandchildren, S.P.

LaBerge: Oh and S.P. was for Stark.

Pister: Yes. That's right. The K didn't appear in my life until I came to Berkeley.

In high school there were several teachers--and I've mentioned one already, my Latin teacher Lillian Williams. Of all the teachers I've had, I give her the most credit for basically defining what it meant to do careful scholarship, because she just was an absolute bear on Latin grammar and syntax. She gave these standardized tests that you had to take, and I remember when we studied Caesar, we had to recite the opening paragraph of Caesar without any mistakes, including the right accent on the long marks and all of that. [laughs] Every time that you tried and failed, your grade went down. I

think I ended up with a B something or another because I didn't get it right the first time. Anyway, I can still recall excerpts from Caesar's *Gallic Wars,* that opening paragraph. So I owe her a lot. As I said I wrote her a letter of thanks.

There's another teacher and, it wasn't so much in who he was, but almost the accident of the course that he taught and the way it influenced my subsequent career; he was a teacher of mathematics in high school. I think I took solid geometry from him. But he also gave a course in plane surveying, and I took his course in high school. As a result of that course I got a summer job I think I've mentioned. That summer job influenced the selection of my major here at Berkeley and changed me from chemistry to engineering. So John Reed really was the instrument that made that possible.

Just to connect to that summer job, I was fortunate enough to get assigned to a survey party. The party chief was a man named, Herbert Marshall, and I lost track of Herb. I know Herb was a career engineer in the Department of Transportation, or the Division of Highways it was called then. Now it's called Cal Trans. Herb was a graduate of the University of Nevada, an old civil engineer graduate. We call them SIs, civil engineers, and Herb took a liking to me on that survey party, and I think, I may have mentioned this. We stayed in boarding houses around the Suisun Bay when we were doing the surveying, and at night he would often teach me about surveying and help me with the mathematics of it and all. More than that he taught me how to run the instruments, the transit and the level so that when I came to Berkeley as a freshman, I already knew how to do all that and often disagreed with the instructor that I had, [laughter] and said, "We didn't do it that way when I worked for the state." Good thing to put yourself in the position of the know-it-all student. The instructor of that course was a fellow named Martin Duke who later became an associate dean at UCLA, and a good friend in later years, but he probably didn't appreciate me. Herb was a great guy. He used to call me Little Willie. [laughter] I don't know, I can't remember where that name came from, but I was Little Willie. He said, "Little Willie, you go over and set the stake over there," or "Little Willie, you go and run the gun now."

Herb, this was the summer of '42 when Rommel was advancing in Africa, in North Africa, I remember he hated the British. It was a strange thing to hear him talk about Rommel kicking the British around because he didn't like the British. But Herb was certainly at that period of my life influential in helping me learn and to gain potential to do things that I otherwise wouldn't have done. That kind of wraps it up.

LaBerge: I want to thank you for being a wonderful interviewee and for contributing this oral history to future scholars.

Addendum -- May 8, 2003:

Pister: My final retirement in 2000 once again proved to be an illusion. In June of 2002 I received a call from Provost Paul Gray. He indicated that Mike Heyman, who had been serving as Interim Director at the Center for Studies in Higher Education, had asked to be replaced and that the two agreed that I would be a suitable replacement. Furthermore, a search was in process and would probably lead to an appointment by the end of the calendar year. In view of my long interest in and participation in seminars at the Center over many years I accepted this appointment. At this time of writing no appointment has been made and I remain the Interim Director.

Presentation of the Berkeley Medal by UCB Provost Carol Christ -- Engineering Commencement, 1996

Photo by Peg Skorpinski Photography

INTERVIEW WITH RITA OLSEN PISTER

I. BACKGROUND

Childhood, Family and Education

[Interview 1: June 24, 2002] ## [1A]

LaBerge: It's June 24, 2002. We always like to start with just a little family background, and I know from Karl that you were born in California. But why don't you tell me just a little bit about the circumstances and your family.

R. Pister: Well, I was born in Oakland in my parents' house, in my parents' bed--my poor mother. [chuckles]

LaBerge: Where in Oakland?

R. Pister: In East Oakland, yes. In a house that my dad built. And I have a brother who's three years younger.

LaBerge: Named--?

R. Pister: Carl John.

LaBerge: Okay, Carl with a C?

R. Pister: Yes. Norwegian.

LaBerge: Your maiden name is Olsen?

R. Pister: O-l-s-e-n.

LaBerge: And what were your parents' names?

R. Pister: Mary and Carl. My mother wanted to name me Carla, and my dad said no, couldn't do that. One didn't name a baby for someone living in my dad's family. So she named my brother, Carl, but we never called him that. They called him Sonny. And I guess I called

him Sonny until we got in maybe eighth grade, and then I read a book about somebody or other, and so I said, "Call me Rose, Bud." So, I've always called him Bud. He refused to call me Rose.

LaBerge: [laughter] So what does he go by?

R. Pister: He's known as Carl. Yes, when he started school and the nun asked him what he wanted to be called, he said, "Carl."

LaBerge: Well, tell me a little bit about your birth. If you were born at home, does the doctor come, did you have a midwife? Do you know any of that?

R. Pister: Oh, a doctor came, yes. But there was no anesthesia. It was hard, I think, for women in those days.

LaBerge: Do you mind telling me the date?

R. Pister: April 14, 1925. I'm three months older than Karl.

LaBerge: That's right. You told me that at dinner. [laughter] And tell me anything you know about your family background, like when your parents, if they were immigrants--or if your grandparents were immigrants, how they got here, and--

R. Pister: Both sets of grandparents were immigrants. My mother's mother was born in Ireland, the first child, after she was weaned her parents came to the U.S. leaving her with her grandmother. She came over when she was four and had to settle into the house where her parents were, and they already had two more children by then. She had to take care of them. So she had to leave her beloved grandmother in Ireland, come with a stranger to a strange world, and then live in a strange place.

LaBerge: And do you know her name?

R. Pister: Mary Augusta Horan. H-o-r-a-n.

LaBerge: What about your other grandparents?

R. Pister: My dad's parents were from Norway and they settled in Washington on a farm. He grew up on a farm. He only went through the fourth grade. My mother only went through the eighth. I figure my Irish ancestors didn't really respect intelligence or education. My Norwegian ancestors felt the daughters should be educated, but the son should go to sea. So, that's what happened.

LaBerge: Isn't that interesting?

R. Pister: Yes, very strange. Although they had books in the house and they read. It's a strange thing. You wish you could go back and ask questions. So my dad spoke Norwegian as a child. And he always had an accent--when he said "mother," he said "mudder," and when he said a W, he said a V. But he had no rhythmical accent, just those few letters that he would mispronounce.

LaBerge: Did he ever speak Norwegian at home?

R. Pister: No. I begged him to teach me and he said, "No, you're an American, you speak American." He wouldn't teach me. I always regretted that.

LaBerge: There's been quite a change in thinking about all of that.

R. Pister: Oh, yes. Right.

LaBerge: So, do you know how your parents met?

R. Pister: How my parents met--no, I don't. My mother was living in Vallejo. I don't know. Isn't that terrible? I wish I could ask!

LaBerge: Well, I know a little bit about your school--that you mainly went to Catholic schools and that's your background.

R. Pister: Right.

LaBerge: We're just going to do this briefly, but is there something really influential in childhood that you--I mean, there are a lot of things that are influential, but a couple of main things that you'd like to just emphasize that have impacted you--either influential people, was it mainly your parents? Was it teachers, uncles, aunts?

R. Pister: Well my parents, of course, and several of the nuns that I had in school. I think the biggest problem, or impact, was that I developed a very serious illness when I was in the first year of high. It took years for them to define what it was, but I spent half of my junior year in bed because I had ulcerative colitis. I finally graduated and went to college at Holy Names. Then I spent my junior year--whole junior year in bed in college.

LaBerge: But you continued to study and finish, even though you were in bed? How did that happen?

R. Pister: I took twenty-one units in the two semesters of my senior year. And I went to Cal for the summer and got some more units. But I'd always taken a few extra units. I was an English major, but I loved drawing and I took some art classes. Then, when I went back to school, I didn't feel that I could go on in English. I didn't have--you know, I wasn't that strong. I don't know why I thought art would have been better, but that's what I finally got my major in.

LaBerge: Tell me about that decision, both to go to college--you must have had encouragement from your parents to go on because not everybody went on to college in those days, particularly--

R. Pister: From the time I was a little girl, my father told me, "You're going to go to normal school." His sisters had both gone to normal school and started teaching. One went on and got a master's. But he just felt that a girl should be educated. And when my brother was ready to go to college, he felt my brother should go to work. Strange, isn't it?

LaBerge: Yes. Did your brother go to work, or did he go to college?

R. Pister: Oh, no. He went to college. He went to USF and he eventually got a Ph.D. in chemistry at USC. But it's funny, the influence went back to Norwegian thinking. Strange. He thought my brother should have gone to sea. That was what a kid did when he reached a certain age.

LaBerge: Now, did you always know you wanted to go to Holy Names, or--?

R. Pister: I was going to Cal. I was accepted at Cal, and the nun sent my transcript to Holy Names College. They said if I went to Cal I would lose my faith, and they didn't want to be responsible for that. I was furious, but then my mother said, "Well, maybe there's a reason for it." My dad didn't think much of it. He wanted me to go to Cal.

LaBerge: So, in other words, your transcript--oh, you were accepted at Cal, but they wouldn't send your transcripts on.

R. Pister: Then, when I was in college, I was going to go on to get my teaching credential, to Berkeley. I noticed I was supposed to have had philosophy. Well, the Holy Name Sisters renamed my religion classes to philosophy classes--we had to take a full religion class every year, six units--and so, in senior year they decided I'd better have a philosophy of art. So they added that to the curriculum for that year and I had to take this stupid course. The classroom was full, but the nun had never done anything in this field. She had graduated from Catholic U. and knew all about the Theologica--what was it? *Summa Theologica* of Saint Thomas Aquinas, but she didn't know anything about art. So she read out of a book during the lecture. That was her lecture, to read out of a book. But anyhow, they gave me credit so Berkeley didn't expect me to take any more philosophy.

LaBerge: Oh, well that was good.

R. Pister: So they were saving my faith, too. [chuckles]

II. LIFE WITH KARL PISTER

Getting to Know a Grad Student at UC Berkeley

LaBerge: Well, in this time, tell me how you met Karl and where you were in school and everything.

R. Pister: My best friend was a freshman at Berkeley. Was she a freshman? No, she couldn't have been. She was a senior because it was in my senior year of college--

LaBerge: And what was her name?

R. Pister: Janet Kropp. She said, "Gee, why don't you come with me? There's a big dance tonight at Cal in the Hearst gym." So I sneaked in with her.

LaBerge: Did you need to have some kind of I.D. or something?

R. Pister: Yes. I don't remember what it was exactly.

LaBerge: You sneaked in? Okay, this is very good!

R. Pister: Yes. She sneaked me in, I guess. [laughter] And Karl asked me to dance.

LaBerge: And that was the end of it? [laughing]

R. Pister: He asked me for a date that weekend and I said I was too busy. He asked me for a date the second weekend. I said, "No, I'm sorry. I can't." And then for the third weekend, he had an invitation to a formal dance. So I accepted. That was the beginning.

LaBerge: And what year? You were a senior, so it was 1947.

And you were married in '50, is that right?

R. Pister: Yes.

LaBerge: I've heard a little bit of the long distance part of the romance, and him being in Illinois.

R. Pister: Right. You know, I feel sorry for kids today because they telephone. We were too poor to telephone and so we wrote letters to one another. We each have all those letters, you know?

LaBerge: That's so wonderful.

R. Pister: But kids today talk on the phone. They have no--

LaBerge: Yes, or email, or--

R. Pister: Right, right.

LaBerge: And how about the engagement ring? Tell me that story.

R. Pister: Did he tell you that story?

LaBerge: Yes, but I'd like to hear it in your words, too--or how it was on your end. I believe you got it in the mail?

R. Pister: Yes. [chuckling] It was in two plastic food containers--[laughing]. Yes, it was quite exciting.

LaBerge: And did you know it was coming?

R. Pister: Yes, he told me it was coming. And it was just the diamond then, but it was beautiful. I just would sit and look at it, or lie down and look at it, or whatever.

LaBerge: The same one you have on, or is it the same diamond in a different setting, or something?

R. Pister: Same diamond. Yes, yes. The wedding band's the same. And then when we were twenty-five years married, he added the two diamonds on either side. My youngest son would say, "The four little diamonds are my sisters and the two bigger diamonds are us boys."

LaBerge: [laughter] That's so dear. Well, just in the courtship, and then through the rest of your life, how much have you been involved, or how much do you know about engineering? And what did you know, or care about the kind of work that he was doing, and--?

R. Pister: I still don't know anything about it. I know some words, but I don't know--I was very much interested in what he was doing. He was doing some kind of a project at the time, working for his master's. It wasn't the kind of thing that, you know--he later was inventing things, so to speak. But yes, I was very interested. He taught, I think, for a year or so. I can't remember now. But he went back to Illinois--must have been in '49. Well, we were married in '50, and we spent two years there, in Illinois, while he was getting his Ph.D.

LaBerge: Now, before we go into that, one of the things he does talk about in his oral history is his conversion. Do you want to make a comment, how you influenced that?

R. Pister: Well, I obviously influenced that.

LaBerge: Yes, right. It wouldn't have just happened without you.

R. Pister: [chuckling] No. And when we first met, we used to argue about things. Like, for instance, I never had drunk any alcohol. And he would say that he didn't drink anymore because he had drunk a lot in the navy. And I would argue with him and he would say it wasn't good for people, and I would say, "It's absolutely good. God gave us that for a good reason." But I wasn't drinking myself, so I didn't know whether it was good, bad, or indifferent! [laughs] But, anyhow, we'd argue about things like that. I don't know--he just--it was wonderful. Worked out very nicely.

LaBerge: But, he must have had interest in your faith because it was such an important part of your life?

R. Pister: I don't think so, because his father told him there were two things he wanted him to remember: you must never lose contact with your brother, and you must never marry a Catholic. So he had some prejudice there to start. I know that the family was a little upset--the rest of the family, not his mother and father. They were very good in accepting me, but the rest of the family didn't think that he should have married a Catholic.

LaBerge: And what about becoming a Catholic?

R. Pister: Well, I don't know whether the others knew. If they may have, I don't know what the deal was, so--. It's strange to look back on that.

LaBerge: I mean, it is--how attitudes have changed.

R. Pister: Yes.

LaBerge: But when he started taking instruction when he was at Illinois, did you know about that, or did he just decide he was going to--?

R. Pister: Oh, yes. Yes, I knew. He told me. And I was praying that he would get the faith.

LaBerge: Yes. Well, he certainly did. But he also told me that when he took you home to meet his mother, how she pulled him aside and said, "Don't let her go."

R. Pister: Yes, that was really wonderful.

The University of Illinois Years

LaBerge: Well, let's jump to Illinois. You're married and you're the wife of a graduate student. What was that life like, and how did you get acclimated to Illinois, and--?

R. Pister: I never did. [laughter] We lived in a little apartment above the house that these people owned. There were two bedrooms upstairs and it became our apartment. I don't know.

Maybe I wasn't too well, but I just was not happy with Illinois. Then, of course, I became pregnant almost immediately, and that morning sickness was something ghastly. Once, he fixed some liver for me because his mother used to do that when people were ill. [laughing] Oh, it was awful! The most awful taste, and that was the end! [chuckling] Gosh, but Francis was born. That was exciting and wonderful. We--

LaBerge: You came back here, that's right.

R. Pister: --born here, yes. So the year after that I was wrapped up in Francis. But then I decided I could go and get a master's, too. So I went to the University of Illinois.

LaBerge: And was this a master's in art history, or art--?

R. Pister: Art, yes. Didn't quite make it, though. The weather was so miserable, and the baby got this heat rash all over him, and it was June. We could go home, so I didn't stay to take the other two courses and get my master's. And Karl said, "You could always come back and get it." But there was no way I was going back!

LaBerge: Come back to Illinois and get it, right!

R. Pister: I froze in the winter. I didn't have winter clothes, you know? And it was so miserably hot and humid in the summer.

LaBerge: Yes. How about his Ph.D. work and everything. Is that something he would come home and talk about, or--?

R. Pister: Well, I guess he did. I don' t remember much, you know. He worked a lot, worked very hard at the desk. Yes.

LaBerge: And you had this new baby anyway.

R. Pister: Yes. We both had this new baby. It was fun. It was wonderful. You know, I knew the people he was working with and their wives. So that was our social life really. The first year I was there as a new bride, the dean of engineering's wife always made a point of calling on the new people. I had been told that this would happen out of the blue. And this one girl said, "She came, and I didn't have any tea to serve her. So I had to get the teabag out of the garbage to make tea." So, I knew it was going to be spectacular when she came. And darned if she didn't do the same thing, but I had tea.

LaBerge: You'd been pre-warned.

R. Pister: Yes. [chuckles]

Faculty Wife at UC Berkeley

LaBerge: Well, we'll remember that when we come back to when you were the wife of the dean of engineering, to see what your role was. But let's come back to Oakland. You're just starting your family in Oakland. You lived in East Oakland to start with?

R. Pister: Oh, we moved--yes, I guess you'd say that's East Oakland, 19th Avenue and Foothill Boulevard. Yes, we had a nice apartment there over a garage. Very modern, and a laundry room downstairs. It was a very nice place, and just two blocks from the church, which was good.

LaBerge: I know you were busy raising your children. In addition, did you have anything that you did as a faculty wife? I mean, was that at all--?

R. Pister: No. We always had dinner parties, yes. You know, constantly.

LaBerge: You mean, you had dinner parties at your house, or for--?

R. Pister: For different members of his group. That influenced me into learning how to cook casseroles and things that I could freeze.

LaBerge: And have it all ready ahead of time?

R. Pister: Right. Because it was so much work to fix a dinner, and it was a really hard job for me. I guess I wasn't too well at that time. But anyhow, I have a huge drawer full of alphabetized recipes and freezing foods and all that.

LaBerge: Was there a kind of a camaraderie, then, in the College of Engineering that--

R. Pister: Oh, yes.

LaBerge: --I mean, different than it is today, or--was that your social life?

R. Pister: Yes, it was pretty much. Yes. Except that we were back here in California, so I had my friends, too--and he had his friends, so there was all of this--friends from college and from the navy. You know, it was much better to be home in California. We did a lot of entertaining. It was the wife's job, as a professor's wife.

LaBerge: And this would be both college, but also graduate students, or--?

R. Pister: I think it was mainly faculty.

LaBerge: And the same thing with you--would you be going to dinner parties, too?

R. Pister: Oh, yes. It was an entertainment thing.

LaBerge: During these years, before he became dean, and different things were happening both in the world and on campus, what were your dinner table conversations--or what was your involvement, for instance, during the Free Speech Movement, or during the Vietnam

War, and Civil Rights--and at the same time, too, it was Vatican II. There was just all kinds of ferment. You could comment on any of that, and how that impacted your lives.

R. Pister: Well, of course it was the conversation that we held, among friends. It was definitely a problem for everybody. You know, the Free Speech Movement really affected Berkeley. I guess Karl has told you about the time that [Governor Ronald] Reagan sent the planes over and they--

LaBerge: Tear gassed--

R. Pister: --all this horrible stuff. Yes, I was scared to have him go to work. I was really frightened. But everything worked out. And then Vatican II was fascinating for all of us, too. We looked forward to change.

Faith-based Educational Activities

LaBerge: Tell me a little bit about your involvement, because I know that that was--one of your main activities outside of the home was with the church.

R. Pister: Yes, when I was the principal of the school, the parish high school here--

LaBerge: The CCD [Confraternity of Christian Doctrine].

R. Pister: CCD High School, yes. I had two classes of each: freshmen, sophomores, juniors, plus one senior class. So I was pretty much involved.

LaBerge: So you were both principal and teaching all those classes?

R. Pister: No, I was not teaching. I was directing the teachers and trying to help them. I developed a program--a course of study, and it was a really wonderful--it was the best program in the whole diocese. And we had the most kids. We had--let's see. What did we have? I think we had 200 kids coming.

LaBerge: And was there already a Catholic school, too?

R. Pister: Not yet.

LaBerge: Okay. So that you really needed this?

R. Pister: Yes. And it was a good program. But, in typical fashion in the church, you can be doing a wonderful thing, and then a new pastor comes along, and that's it. But maybe that happens everywhere. I always blame it on the church--

LaBerge: I'd suppose it's--like if a new chancellor, a new president, a new boss, you know--I guess it depends on the person, too.

R. Pister: Yes. I'm thinking of Father Abeloe and how he was put in charge of the high school program, and he wasn't interested in anything we'd been doing. So it just went downhill. And it made me feel bad because my kids didn't get that kind of training.

LaBerge: And you had already gotten it in gear?

R. Pister: Right, yes. Francis was helping me run things off for the teachers, but by the time he was in high school, there was nothing there. Sad. The church has neglected the teenagers.

LaBerge: Yes. In fact I see a lot of teenagers going to things at the Presbyterian Church, or some others who are really good for youth.

R. Pister: Yes. In fact our girls went to--I forget what that was called, that youth--

LaBerge: Young folks--Young something. Young Life?

R. Pister: Yes.

LaBerge: I think that's what it's called now, is Young Life.

R. Pister: Yes.

LaBerge: Even when you were putting that curriculum together, how did you do that? Where did you get the resources?

R. Pister: I don't know. I just kind of found them. [chuckles]

LaBerge: I mean, you searched them out?

R. Pister: Yes. And it interested me to see the kids well educated in their faith. Then we went to Ireland and somebody else had to take over until I got back. And then the following year, after I got back, the new priest came and changed the--

LaBerge: It was sort of scuttled.

R. Pister: Yes. Another thing we did--we started an ecumenical group before Vatican II. We used to have the Episcopalians come here to the house, and we'd argue out things like mad and have a good time, and then have dessert and coffee afterwards. We did things like that.

LaBerge: How did you get that organized? How did you have the thought and then how did you find the people, and--?

R. Pister: You know, I don't know. Isn't that crazy?

LaBerge: But you're the one who did it, is that right?

R. Pister: Yes. I don't know how I did it, but we had a good time. And then we ended that one year by having--we didn't have any furniture in the living room yet. This was an almost empty room, so we had to sit on regular dining chairs, and what have you. So the last thing we did was to have a Passover meal. We did everything. I had tables set up--and I don't know

how many there were, forty maybe. A lot of people in this room. I invited the parish priest, and he just was opposed to the relationship between two churches evidently, because he really said some embarrassing things in front of the Episcopalians.

LaBerge: You mean he came, but he--?

R. Pister: He came, but--yes. That was a really sad situation, but I think they enjoyed it so much. And they saw the connect--one woman, Episcopalian woman, said to me, "Well, you know, I was wondering when you were going to say grace," and then she said, "but then I finally realized that whole preliminary part was grace." So anyhow, we had a good time.

Then the following year, I had my juniors do that. It was the first time that they had the Passover meal in the parish and I invited the rabbi and his wife. Our poor pastor--I wanted them to sit together. He was embarrassed to tears so he sat on my right so he wouldn't have to talk to them, to the rabbi and his wife.

LaBerge: Oh, my gosh.

R. Pister: You know, he just didn't know any non-Catholics, I guess. He was a good man, but shy.

LaBerge: This is absolutely perfect because this is a big part of your life, and also you were really active in this, and I think did a lot of grass roots things.

R. Pister: Yes, I guess I did, to look back on it.

LaBerge: Yes, you really did. So please go on with this.

R. Pister: Oh, well. In the summer we had a bunch of teenagers come here every week, and we would read a part of the Bible, and then I would show them the difference between the Old Testament and where it was brought up into the New Testament. I always arranged that we would sing a Negro spiritual, or something that would--you know, fit in with the Old and New Testament readings. Then they would sing and sing. And it was wonderful. They drank and drank--we had fruit juice and they had a wonderful time. It was great. The thing that really amazed them was I had a modern translation of the Bible. And it was the first time they ever heard the Bible and understood that they were being spoken to. It was as though it was in a foreign language up until then.

LaBerge: Oh, you did a wonderful thing. And were your kids teenagers by this time, when you were having the teenagers over?

R. Pister: No, they were still--

LaBerge: No? They were still little? But did they kind of come and sit in or watch?

[1B]

LaBerge: How you take care--what arrangements would you make for your own kids? Where did you find time to do this because you were very busy with lots of activities?

R. Pister: Well, when my kids were little, I always put them to bed after lunch--

LaBerge: For a nap?

R. Pister: --for a nap. And I said, "If you wake up, when you wake up, just play quietly." And they did. That's when I would read and lie down myself because I didn't have much energy.

LaBerge: You needed to.

R. Pister: Yes. So I did a lot of reading then. They were awfully good little guys.

LaBerge: And you trained them to--

R. Pister: Yes. They were very good little guys.

Mother and Children Learning to Drive

LaBerge: And didn't your mother help out sometimes, too? Because Karl spoke about it.

R. Pister: Right. She was our only babysitter. But she wasn't here all the time. She lived here in Lafayette for a while, then she lived down south with my brother. I don't remember what years she was here. Yes. She didn't live in the house. She had her own apartment, and that was great for the kids because they would go down to her place after school. Or during summer they would walk down to grandma's because I didn't know how to drive.

LaBerge: Oh, I knew that! When did you learn how to drive?

R. Pister: When our last baby was nine months old. I was having a meeting of my board for the high school here, and I had made coffee and cookies, and what have you. And my little guy pulled the coffee pot down on himself. It was so horrible, just horrible. And I put him in ice water in the tub, but he was so miserable. He was burnt down the front and down the back. So I had to call my mom. She wasn't there. She couldn't take me. So I called my friend Patty. She drove me into the hospital and the little fellow had to stay there for some time. Why did I tell you this?

LaBerge: Because it has to do with you learning how to drive.

R. Pister: That's it. Then I said to myself, "This is ridiculous. Why should I be depending upon Mom or Patty?" So I took lessons.

LaBerge: But that's very hard to learn--I mean, I think it's easier to learn when you're fifteen or sixteen. There's no fear.

R. Pister: Oh, I'm sure it is. Right.

LaBerge: So that took a lot of courage.

R. Pister: Well, it was a good experience. But poor Karl--[chuckles]-- I'd have to practice between lessons. Poor Karl would just be a wreck.

LaBerge: I'm sure!

R. Pister: [laughter] He just couldn't stand sitting on the right hand side and having me drive!

LaBerge: I'm sure he couldn't. What good experience for him before he had teenagers doing it.

R. Pister: Well, I sat with our teenagers as they practiced driving. He did it once and--

LaBerge: That was it?

R. Pister: I did all the rest because he just had that one experience. Francis would never have gotten a license if Karl had continued with him. [laughter] So, yes. That was a good thing that I finally learned--

LaBerge: Well, he was probably really happy, too, that you were learning how to drive.

R. Pister: Oh, of course. We had a big old black car that was a station wagon. And I didn't learn until we got rid of it, but the faculty called it "the hearse."

LaBerge: [laughter] Oh, dear. Well, I'm just amazed at all those things that you did because I know--I only have two children--to do anything, get anything done and when you were doing it with six, and having meetings--it's really something.

R. Pister: [chuckles] Well, but I just think the kids were good kids, and we were organized.

LaBerge: And they must have picked up on all of this that you were doing.

R. Pister: I think so. Yes. I remember, though, when Kris was born, he was not amenable to being ignored, I'd give the girls paper dolls or something, if I had to have a meeting when they were home, or when I had to go up to the church. I couldn't do that with Kris. It was very hard to have a meeting when he was around.

LaBerge: Whereas Francis must have been more amenable.

R. Pister: Yes, he was. Being the oldest, he talked with us like an adult. It was really good. Therese is our next child, and we had a program where there would be a Christmas scene put on up at the church, and I gave the seniors--well, we had the teachers give the seniors an exam--the one that got the highest grade would be either Mary or Joseph. So, when Tracy got to be a junior, she should have been Mary because she got the best grade. But they had changed the rule, because I wasn't involved anymore. [chuckles] But that was fun, too.

And another thing we did at Christmas involved our neighbor, the Somertons down the street. When the kids were little--suddenly the public schools wouldn't allow any Christmas hymns to be sung--so Bill Somerton decided, and we agreed, that we should have a Christmas scene at the bottom of our hill, and invite all the neighbors, and we would sing Christmas carols. It was a good experience and went on for years and years. The kids would come home from college just to be part of it. That was so successful, we had these life-sized figures which we painted and they looked great. I then decided that we should have an art contest for the kids in CCD high school. It didn't work out. The

kids were just interested in money, or expensive gifts and we couldn't get any money from the parish, to give as a prize for the best design. So we never got any really good applicants. In the end, we used the Mary and Joseph, and the little baby Jesus pattern and made an extra set for the church, which is still being used, but nobody knows the story.

LaBerge: Well, they might if they read this oral history! [laughs]

R. Pister: Well, they'll never read this oral history.

Travel with the Family; Schools in Ireland

LaBerge: Now, you mentioned going to Ireland, and you went overseas several times.

R. Pister: We spent a year in Ireland, and a year in Germany, then a three-month period, or four-month period in Germany. That's about it. We traveled back and forth, yes.

LaBerge: Which was not easy with a big family.

R. Pister: No. I look back on it now and think we must have been crazy to take all those kids to Ireland. And the baby wasn't even two yet. But it worked out. They had a wonderful time. The girls were in a Mercy school. I always loved the Mercies. And the girls learned to speak Irish, or the two younger ones did, and they learned Irish dancing. It was just wonderful. Even one of our daughters, Jacinta, won a prize at the feis for her dancing. And Tracy went to the first year of college, they called it, which was also a Mercy school, so she had a very good relationship with the nuns.

LaBerge: In Ireland, is college high school? It's equivalent?

R. Pister: Yes, right. Poor Francis, though. We sent him to the Christian Brothers school and it was just awful. He couldn't play in these crazy games that the boys played so they ignored him. And Francis couldn't stand that the brothers would beat kids up.

LaBerge: And this was an all boys' school, probably?

R. Pister: Oh, yes. Christian Brothers is all boys. So he spoke to the brother for his homeroom. He said, "We'd never do things like that in America. It's just not done." And the brother never hit another kid while Francis was there--in Francis' classroom.

LaBerge: Wow.

R. Pister: But then, he was so unhappy. And wanted to work on his piano. So we rented a piano so that he could practice. But he was lonely kid.

LaBerge: That's a hard year--

R. Pister: At that age, anyway.

LaBerge: --to go someplace new. And do you play the piano, or some instrument? Is that where the musical--?

R. Pister: I used to play the piano, yes, until Francis got so good, and then I quit. We used to have a beautiful square grand here, and it was wonderful. It was a wonderful release for me to play. You know, if I was angry, I could play something fast and loud. I started the kids off with lessons, and I found a good teacher for them. But we gave the grand piano to Tracy in Stockton when we moved back here from Santa Cruz so I'd have a little more room in the living room.

LaBerge: Well, when you were making those decisions about, you know, should we go to Ireland, take all the kids--I'm just assuming that's something that you discussed fully.

R. Pister: Oh, absolutely. Yes. And I didn't want to leave my mother because she would have been here with nobody to take care of her. So I decided if we went, I'd have to take Mom. Yes, we found this house finally, after miserable conditions in the first house. It had not an apartment, but a bedroom and a bath for the maid, so Mom had that room. So when we did anything, or wouldn't be home with the kids, she would be the babysitter. Of course, she loved being with the kids. She also showed me how to do things that I never would have learned to do, like plucking the Thanksgiving turkey--

LaBerge: Yes, that we didn't have to do in America anymore.

R. Pister: Gosh, I had to order that turkey special, anyhow. They weren't used to having turkeys on Thanksgiving--of course, they didn't have Thanksgiving. But there were all sorts of things. All these things that were just impossible--she knew about it, too, and she did them and helped me.

LaBerge: That must have been fun for her, too, with the Irish background, to be there.

R. Pister: I think it was. Yes, but it's a funny thing. She would take little Kris and walk him to church, or Mass every morning and then walk back. And the Irish people would come along and they'd see her--they'd cross the street rather than meet her. So my mother said to me--you know, I think my mother must have been lying to me. She told me that Ireland was so beautiful, and the people were so wonderful, and she experienced this! But of course, her mother didn't really remember Ireland. She was four when she left.

Karl as Dean of Engineering

LaBerge: Yes. Well, I'm going to take us back to campus for a little bit. Karl had told me, like during the Free Speech Movement, how he got more involved. At first he wasn't really cognizant of what was going on, but the more he got involved, the more he sided with the students, but also, politically, his views changed--that he started to grow a beard, that he changed--

R. Pister: Yes!

LaBerge: What about you? What did you do, and what was your--did you also change your registration?

R. Pister: Yes.

LaBerge: How did you view that beard growing and--he paints himself as kind of a rebel.

R. Pister: Yes, he was a bit. [chuckling] A *little* bit. But he was kind of a safe rebel, so he didn't take any chances that would have hurt his family, you know, or his work. Yes, but we all have to try some things.

LaBerge: Exactly.

He changed to Peace and Freedom Party, or something--

R. Pister: Right, yes.

LaBerge: --and joined the union.

R. Pister: Oh, that. I'd forgotten that. Yes. We both changed to the Peace and Freedom Party.

Well, he looked very strange here in Lafayette, which was always so correct--with his beard. Yes, but it was kind of fun for a while. My mother used to say that the women of her day thought a man with a moustache and a beard gave you much better kisses.

LaBerge: [laughter] Well, what did you know about, for instance, his work on campus, or his reputation on campus?

R. Pister: Oh, he talked about everything. I knew everything.

LaBerge: Yes. And were you surprised when he was asked to be dean and he took that on?

R. Pister: I didn't think he would because he loved teaching and he loved research. And I think it was kind of a surprise to him, to be asked. Although he was chosen by a search committee in 1973 and he--who was it? I can't remember his name now, but he decided he'd name somebody else as dean, which was a good thing because that was maybe four or five years [seven years] before Karl became a dean. It gave him a chance to continue his research and to learn more about people, so that when he was asked--I think he was pleased. And he did a good job, of course.

LaBerge: Yes. All the reports are he did. Did that change your life in any--did you have to entertain more? What does the dean's wife need to do?

R. Pister: That's what the dean's wife does. She entertains. Well, I didn't have to do--I only did a couple of dinners here. Then we decided all of them should be done on campus. That was quite a relief for me.

LaBerge: So, what did that mean for you, though? Arranging things, or--?

R. Pister: I would be there, as the hostess.

LaBerge: But at the Faculty Club, or--?

R. Pister: Well, we had that new building, the Bechtel Center, and so we'd have receptions there. It was a nice place to have receptions and meals, dinners. But then we would go to Women's Faculty Club for our formal affairs, and Men's Faculty Club. So it was a very interesting experience, to meet all these people, that were supporting the College of Engineering. And the first chair that Karl got--that was such a wonderful experience and we gave a big formal dinner for that couple. We tried to do that with each of them. So it was really very interesting. Of course, I had to get different clothes. [laughter]

LaBerge: Exactly! All the little things that really do impact

R. Pister: Right, right. Yes. So that was kind of fun.

LaBerge: Yes. But did it mean, too, that you were calling the caterers, you were sending out the invitations, or how--?

R. Pister: No, I would sometimes decide the sitting for the main table, but no, because--

LaBerge: Who would do that? Oh, Marily Howekamp?

R. Pister: Yes.

LaBerge: And what about young faculty, or graduate students?

R. Pister: We always had them at the meetings for the dinners, our donors, big donors--so they could meet the young faculty. That was a great experience for them to see and hear what they had to say.

LaBerge: This is wonderful! What--in your family, did you get involved on campus? Did you go to football games and basketball games with the kids? Or--how much involvement there?

R. Pister: I used to go with Karl for many years with his two friends that he knew in the navy. They were good friends of mine, too, then. So we'd always go on to Big Game. And one year I'd have the dinner party, the next year the people closer to Stanford would have a dinner party. I went every year until one year it was pouring rain, and I got soaked. And I said, "That's it. No more Big Game." We still had our dinners, but no more Big Game. And I wasn't that interested in football. It was fun, but--.

I attended football games when I was a grad student because that was one of the advantages of being a grad student. You got this card, you could do all sorts of things. So my friend and I from Holy Names would go together because Karl was with his men friends, you know. He wouldn't want to--and then we'd try to sneak out without him seeing us. He seemed to find us every time. I don't know how that was.

LaBerge: And this was--there was one summer where you were both on campus. You and Karl were both students.

R. Pister: Right. Well, in my graduate year at Berkeley, to get my teaching credential, high school teaching credential. We were both there during that year. In fact, we got our teaching

credential, Dorothy Bachand and I, at the same celebration that he got his master's. So we were all there in our caps and gowns. Of course, we wore our Holy Names red and white hood.

LaBerge: Well, in those deanship years, just from your experience and from what you've heard, what were his main contributions?

R. Pister: Oh, I just think he was a very good organizer and kept things peaceful, whereas before they might not have been so. I don't know--he did everything right. He's the best guy in the world!

LaBerge: And he is very organized. I can tell he is extremely organized. He must have had a lot of energy and/or spent a lot of extra time.

R. Pister: Well, he just knows how to do it. As he says, "Well, I'm an engineer." So that's the answer. [chuckles]

LaBerge: But to do all of that so well, plus do things around the house, plus raise children--it takes a lot of time and energy to do all of that.

R. Pister: It does, yes. And I don't know how we did it. I really don't. And our kids all say they don't know how we did it because they're having such a time with two or three children. [chuckles]

LaBerge: Yes. Well, you both were very organized, I think.

R. Pister: Well, we enjoyed what we were doing.

LaBerge: Yes. It's not like you had a blueprint for raising six children because you both had much smaller families.

R. Pister: Yes. I remember when I was teaching in Alameda. I loved my kids. I had forty-five in a class. I just loved them. I would have taken them all with me if I could have. So I thought, gee, maybe we can have twelve kids.

LaBerge: You probably could have!

R. Pister: We probably could have. [laughing] Fortunately, we didn't.

LaBerge: Well, as Karl was talking, you could see his growing social consciousness through all of this, and leading to the different programs for minority students, just in engineering.

R. Pister: It's really a wonderful thing that he did, yes.

LaBerge: But you must have had some impact on that. You must have had discussions at home.

R. Pister: We always talked about everything. Yes, I think that was one of the big things he did. It's really wonderful to work with minorities--like the black students. It was good to meet them and see how they reacted to things. Yes, that's one thing--I don't really miss it because I'm too busy with other things, but in a way I miss it because it was--

LaBerge: The contact with students?

R. Pister: Yes. I didn't enjoy those dinners, though, when we had to sit at the head table. I don't like to be out in front of everyone.

III. UNIVERSITY OF CALIFORNIA, SANTA CRUZ

Recruitment, 1990

LaBerge: Yes. Did you ever have to speak at anything?

R. Pister: I didn't until I was at Santa Cruz. I don't speak if I can help it. I can teach. I mean, I can teach a whole class, but--

LaBerge: That's a whole different experience from giving a speech. When Karl stepped down as dean, I think it was 1990, and he was considering retiring.

R. Pister: He was retired from the position of dean.

LaBerge: He was retiring.

R. Pister: Yes. They had a big retirement party.

LaBerge: Tell me about the retirement party and then tell me how your life changed. And the meeting with David Gardner.

R. Pister: Yes, that was sometime the following year, I guess. Yes, I'm trying to think. Well, the retirement party was wonderful, and all the people were there. Our kids were there--

LaBerge: Right. And who put it on?

R. Pister: The faculty and staff of the College of Engineering--and it was a great experience for the children to hear from the speakers how much their dad had done.

LaBerge: And what were you going to do?

R. Pister: We were going to just take life easy and travel around the country when we felt like it, that kind of thing. But, I think he wouldn't have been happy retired for that long.

LaBerge: Yes. I mean, when you look now, in retrospect, what he's done in this last twelve years or so.

R. Pister: Right. He needed something else to do, although he's happy to be at home. But when David Gardner presented this to us, I talked it over with the kids, and--

LaBerge: Well, let's say for the tape what he was presenting was, would Karl be an interim chancellor--

R. Pister: --for a year at UC Santa Cruz.

LaBerge: Now, how old were your children at that time?

R. Pister: Oh, they were all on their own.

LaBerge: Okay, so nobody at home.

R. Pister: But we talked about it, and I said, "Gee, I hope he doesn't take it-- But, I'm going to encourage him to do whatever he wants to do."

LaBerge: Yes, and what was the children's reaction?

R. Pister: They felt the same way. It's strange. They didn't know what would happen to him, all the problems. And of course, David Gardner told him Santa Cruz was in such turmoil that he would have to close the place if somebody like Karl didn't take control. It was not something that I was eager for him to do.

LaBerge: Yes. And so, tell me about the meeting because what I've heard is that David Gardner really had to talk you into it or he was courting you, shall I say?

R. Pister: Yes. That's right.

The Chancellor's House

LaBerge: So how did he do that? What do you remember him saying? Or what impression did you come away with?

R. Pister: Well, he just tried to make everything seem fine. [chuckling] I would have this beautiful house. It all fit. All the furniture, and all the grounds, and all this, and all that. Yes. It was a beautiful home, but it was really a mess. Nobody in any of the years since it had been built had taken care of it properly. And it was something like 5,500 square feet, so it was a big house. The best part of it was being down in the public part and looking out at Monterey Bay. Oh, it was gorgeous. Sometimes I'd be up really early in the morning and I'd go down there with lights still on in the city, and the moon up there, but the sun rising --oh, it was just beautiful. Really beautiful. The house was great and the far end of the house was our apartment. We had our bedroom and another bedroom, two baths, and our kitchen, which had been modernized, fortunately, by the wife of a previous chancellor.

LaBerge: And who was that? Was it Sinsheimer?

R. Pister: Karen Sinsheimer. Fortunately, she had gotten some money from the president's office and decided to spend it on a decent kitchen because, up until then, they had to have all their meals down in that big kitchen. Here you'd just finished entertaining a group of people and then you'd be in this public kitchen and you'd have to sit there, over in a corner while the kitchen was being cleaned for the next party.

LaBerge: So, for you, you really had a separate place?

R. Pister: Yes, we had our own apartment and--look at the hummingbirds. Just love that. There's two of them there. I don't know if they're threatening one another, or just playing.

LaBerge: Well, when you were going down to Santa Cruz, what were you going to do with this house? What about those kinds of transitions that you had to have?

R. Pister: The first couple of months, we'd come home every weekend because I was worried about the house, and so was Karl. A couple times, the security system went kaflooey and the police and the firemen came once and knocked the door down. It was kind of worrisome. But then our son--whether he came up then or not, I don't know. But anyhow, we had him live here.

LaBerge: Was this Karl or Kris?

R. Pister: Karl Francis. Yes. So that made a big difference. We didn't have to worry about it. The only thing I required was that we have our bedroom and bath so that--so that we could come and go when we wanted. We didn't come that often, but I wanted to be able to do that. When he found a place somewhere else, my daughter was renting a miserable house so we asked them to stay here.

LaBerge: And which daughter is this?

R. Pister: That's Jacinta.

Beginning Difficulties

LaBerge: Okay. Well, let's talk a little bit about being a chancellor's wife. I mean--first of all, you were kind of talked into it. But the public impression is, "Oh, isn't that a fabulous and fun life, just entertaining and--" So, I'd like to hear what it's really like, and what the actual problems are, and what those pressures are. And maybe that isn't such a fun life.

R. Pister: It was not fun for a number of months.

LaBerge: Yes, so tell me about that.

R. Pister: Because the entire student body, and the faculty, and the people in the city hated the chancellor of Santa Cruz--

LaBerge: Yes, no matter who it was.

R. Pister: Yes! When we first got there, Karl made a point of going around to all sorts of groups. They invited him and he talked to all the mayors, and he talked to all their people. I went with him once, early on, to this neighborhood group that invited us to come and have coffee and cake. Well, we sat down and they just started talking. They yelled at Karl and said all these horrible things that the chancellor does, and blah blah blah blah blah. It was just awful. They never stopped. And he would try to answer them in a calm voice, which he did. Then at the end, they said, "Well, now let's have some coffee and cake." Well, there was no way I was going to have coffee and cake with those people. Plus, they'd gone on and on past the time so I used that as an excuse that we had to leave. They were ugly. And there was a lot of that.

There was one kid who bragged that he had made the former chancellor quit. It was his doing, and all of his friends' doing. The kids were really pretty bad. Well, I'm sure Karl told you that in their newspaper they claimed that I had spent $100,000 on china for the dining room.

LaBerge: Yes.

[2A]

LaBerge: Tell me about that claim about the china.

R. Pister: Oh, it was already there. The china was there. I didn't spend any money on that at all. [chuckles] Crazy.

Town and Gown Conflict

LaBerge: And where do you think this stemmed from--people's reaction and their view of any chancellor of Santa Cruz? What was that about, do you think?

R. Pister: I never fully understood it. I think the city people--well, once the courts decided that students could vote where they were going to school, then the students were so in the opposite direction from the townspeople. I think that was partly why they were so mad at us because "those students are ruining our city." Of course, they forgot about all the money that was coming to their city through the university and those students. I think that was part of it. There may have been some chancellors that didn't please them for some reason or another. I don't know.

LaBerge: And what about the students' reaction? What was their beef with the chancellor?

R. Pister: I don't know. I think they just hated the administration. Yes. They really did nasty things.

LaBerge: Well, give me some examples.

R. Pister: Well, they would write these hideous things in the school paper. For instance, it made them angry that I had a washer and dryer put in in my apartment. They wrote that up. But if I hadn't had it, I would have had to cross all of the public section, through the great room and hall to the kitchen, the big public kitchen, into the other room to wash my clothes and dry them. So I thought that was a necessity.

LaBerge: Yes.

R. Pister: And, gosh, they were so miserable about it that even when we had the freshmen reception, they were saying, "Well, why did you spend that money. How can you--"

LaBerge: I mean, they said that to your face?

R. Pister: Yes.

LaBerge: Oh my gosh!

R. Pister: Yes. And the first Women's Club meeting I had--they knew I was having it at ten o'clock--and they set up these nude statues of men on our lawn. They thought that would shock the women to death. It probably would have! [laughter] But, I mean, it was just the kind of thing that they did. And at Christmas time, they came and stood outside our windows--and I thought they were singing Christmas carols. They were, but the words were just awful--about the administration, about the chancellor, which was very, very ugly. But Karl turned it around.

LaBerge: Yes, and how did he turn around--and how did you turn it around? I mean, to be the innocent recipient of that is difficult.

R. Pister: Yes. It was even harder than that because the paper--the city papers had written these ugly things about us.

LaBerge: The city papers besides the campus papers?

R. Pister: Right. I hated to open the newspaper up because I never knew what it was going to say about us. But, Karl won them all over.

LaBerge: Yes, and how did he do that? And how did you support him in doing that?

R. Pister: He did it just by his own personality, and being human and kind and--you know, he just--

LaBerge: Yes. And tell me about the faculty problem.

R. Pister: Well, I just know that there's a lot of dislike and discontent. But I think that--

LaBerge: And suspicion maybe?

R. Pister: Right, right. But then, after six months they voted to have him as the permanent chancellor. So that was certainly wonderful. But it wasn't any fun for the first few months. I remember one day, Karl was off in Washington, D.C., and I had some kind of a bug. I had a little temperature, so I was lying down in one of the two bedrooms that we

had. And all of a sudden, the door opened and here this woman comes in. I jumped up and said, "Oh, I'm sorry, but this is a private house." "Well, it belongs to us at the university, doesn't it?"

LaBerge: [gasps]

R. Pister: I mean they just--the first week I was there one of the students brought a newspaper reporter and took him through our house. It was just this kind of ugliness. Little things that made you feel uncomfortable. But I was so upset by that woman coming in--

LaBerge: To your bedroom!

The Women's Club and Good Friends

R. Pister: Right--I said to Karl when he phoned that night, "If I don't get a fence around that yard, I'm going back home." [chuckling] So, I got a nice eight-foot fence. We then had a private patio that nobody could get into. No one could open our door again, so that made a difference.

LaBerge: Tell me about the Women's Club.

R. Pister: The Women's Club was for both faculty and wives and city people from the town, which was good, I thought. They were very good and I enjoyed being with them.

LaBerge: And what was your duty as chancellor's wife?

R. Pister: I don't think there was a duty, but I felt since they were meeting in my house that I should be active--

LaBerge: Yes.

R. Pister: So they had me on the board, and we did all sorts of things. We had money-making affairs for the school. The Women's Club sponsored women who had quit college years before, had children. So they had a re-entry program scholarship.

And that was a wonderful thing to be working toward. When we left Santa Cruz I was touched by the Women's Club designating the scholarship program as the Rita Olsen Pister Re-entry Scholarship. So I did different things so they could make money and enjoy one another. That was good. I think probably the biggest thing I did--and I didn't do it on my own--two of the other members, one was the vice chancellor's wife, who became a very good friend--

LaBerge: And who was that?

R. Pister: And that's Eileen Tanner. And then the other woman was Ann Levin, who was--I think, president of the foundation at the time. It was all her idea. So the three of us formed a group. We decided that once a month, we would invite women from the town, we'd have

a tea for them, and we would take them around the campus so they could see that they were welcome. We would have one faculty member speak to them. We asked Karl what we should name it and he said, "Discover Santa Cruz."[1] It made a big hit with the women by bringing these people in, once a month, and letting them see that they were welcome. You know, it wasn't what everybody thought it was. It made a big difference. So we did that for the five years. Well, I don't know when we started. Maybe six months after we were there. I can't remember. But it was very successful. And--well, we entertained like mad--three or four thousand people a year.

LaBerge: My gosh.

R. Pister: It's just incredible. I don't know how we did it.

LaBerge: And did you have some kind of a social secretary, or--?

R. Pister: I did. I had an assistant, yes. And she worked down in the old--in the big kitchen, in the little corner where the chancellor and his wife used to have to eat their meals--[chuckles] --if they didn't eat out in the dining area for an affair.

LaBerge: Yes, yes.

R. Pister: And I had a wonderful woman who worked with me. Then as the years went by I had two others, one at a time, but they were all very helpful. So we worked wonders.

Entertainment Duties

LaBerge: Wow. And did people come and stay at your house, like important visitors, or something like that?

R. Pister: No, nobody ever stayed that I can remember.[2] I don't think so.

LaBerge: Or, then just entertained. What remarkable people do you remember, or an anecdote about someone you entertained?

R. Pister: Well, we entertained a lot of well-known people. I mean, we'd have receptions for them. I think the one I liked the most was from South Africa. He was the first black ambassador to the United States. I just liked particularly what he said. And then I think of Elie Wiesel.

LaBerge: I didn't know he was there. Oh, what a treat!

R. Pister: Yes, that was really wonderful. And--oh, I don't know. It was really nice to be able to do that. Well, the other important thing that I did--

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1.Karl borrowed the name from UC Berkeley, which had a similar program in the 1980s.
2.Jack and Susie Peltason stayed with us on one occasion.

LaBerge: That's what I'd like to know!

R. Pister: The one important thing that I did was invite the different religious groups in for a reception. So the first one we had was in December. I invited the Jewish people to have a Hanukkah celebration. And it was a wonderful experience, just wonderful. They were so pleased because apparently something horrible had happened the year before and I never found out what it was. But to suddenly be accepted and honored, so to speak, you know?

LaBerge: Yes. And was this a group on campus? Were there different--? Or were they in the city here?

R. Pister: No, it was a religious group on campus. They didn't have a place on campus. They couldn't--but they were the ones that directed--

So I invited each of those groups to have a reception each year where they could have their own people and it worked out very well. It was really nice. But I enjoyed the Hanukkah ones the best. In fact, when I went home, I really missed having that Hanukkah party. Yes, so that was good. So we did little things like that.

LaBerge: And did you do that as part of the women's group, or just you, yourself--?

R. Pister: No, I did that, just I.

LaBerge: And did Karl come to that, too?

R. Pister: Oh, yes. He did. Yes, he came to it. And the rabbi came. It was really great. And the kids all came, you know, because it's a family affair. It was really great. I miss that. Every Christmas I miss that. [chuckling]

LaBerge: And I know you got involved with the mission church.

R. Pister: Oh, yes. We loved that church, yes. The priest, the pastor was a wonderful man, still is a wonderful man.

LaBerge: Is that like the Newman Hall at Berkeley? Is that the student parish, or not--or is there something else for students?

R. Pister: The Newman people lived off campus and they had a tiny little chapel. I think you could fit three people in it. But they would have mass on campus in one of the rooms that would fit the group. They were Marists, I think, the Brothers of Mary. And we went--oh, I think the first month or so, we went to the students'. Although we don't like to go to late evening Masses, we'd rather go first thing in the morning.

LaBerge: What you mean--was it a ten o'clock one, or five o'clock, or--?

R. Pister: No, it was something like seven thirty or eight. I went because it was our students that were there. That brother--he made such a thing out of our presence at the mass. He was so happy that the chancellor and his wife had been there. And he just thought it was really great. I think we probably only went one other time. Maybe a couple of years later that we

Chancellor and Mrs. Karl Pister at UCSC, 1994

went again, but that evidently made a difference to people. Yes. No matter where we went in the city, people would afterward become more friendly.

LaBerge: And they knew you because your picture had been in the paper and everything.

R. Pister: If I went to an affair off campus they would find a seat for me. You know, that kind of thing. And I got so I had to smile all the time because everybody knew me. I didn't know whether I'd met them or not, or they just had seen us in the newspaper. So in a way, it's very good to be home. Nobody knows me!

LaBerge: Oh, I bet.

R. Pister: I can walk down the street and nobody notices. Although I've got friends here.

LaBerge: Yes, but it's not being this public persona.

R. Pister: Right.

LaBerge: Or even like things--I mean, you had to find haircutters, doctors--I mean all those kinds of things?

R. Pister: Right. That's always a problem, I'm sure, for people that move. Yes. I found a wonderful hairdresser, though, Robert Corday. And I would go down there every Monday at 8 in the morning and he would fix my hair. Then when I'd hurt my leg so badly that I was held up, I had to stay at home, he came out and did my hair for me. He was just a really great person. I gave one of these affairs to make money for--well, I was on the board of the Sesnon Art Gallery on campus, so I gave one of these affairs for them. And he knew a certain artist from the area who was a friend of his. So, as a result, we had that man's paintings on display, plus the ones from the faculty. That was really great. We held several auctions.

Right. An auction. And we made a lot of money for the gallery that way. It was fun.

LaBerge: So you got involved in the arts really?

R. Pister: Yes, I did. I was on their board. Then I was on the board of several things in the city, too. So I was kind of going all the time.

LaBerge: Yes, I would guess.

R. Pister: And I learned very early on that I had to be dressed for the day at eight o'clock sharp because otherwise, somebody would ring that doorbell down there. I couldn't go down in my bathrobe. So I couldn't read--I had gotten into the habit when Karl retired of just--we'd have coffee and breakfast, and we would just sit there and read the newspaper, and--

LaBerge: Take your time.

R. Pister: --take our time. Well, I couldn't do that when I was in Santa Cruz. So it was good to get back in Lafayette and be able to do that, too.

LaBerge: Yes. Well, how did you decide--I mean, I realize the faculty wanted him to stay, but how did you two decide that yes, you'd stay more than that one year?

R. Pister: I think it just seemed natural to do. Clearly, the president was going to ask him to stay at least one more year. But when the faculty made him permanent then, you know, it just wasn't--I was very pleased that they respected him so much.

LaBerge: And you knew he was making an impact?

R. Pister: Oh, yes. Without a doubt. After the miserable starting period.

Transition for a Chancellor's Wife

LaBerge: Yes. Did you have anybody to help you with the transition? Like any advice from the previous spouse, or--?

R. Pister: Yes. Both--gosh.

LaBerge: Stevens?

R. Pister: No. They were gone. I met them before--you know, when we first accepted. But they were gone. Karen Sinsheimer. She had me for lunch and told me what she thought--you know, what she had experienced.

Yes. Okay. Another--Therese Heyman, the wife of the chancellor at Berkeley, had me for lunch, and then she gave me a lot of papers and things that she had collected over the years, of things that she had done, which was good to know.

You know, somehow or other, nobody prepares the wife for all the job that it is. And it's a full-time job.

LaBerge: This was after chancellors' spouses became chancellor's associates, or something--?

R. Pister: No, they were associates and we were going to be given a sum of money each month after we retired. And sometime, it was in that year or the year after, the regents just removed that. I said to Karl that was part of our agreement to come here!

LaBerge: That was part of the--

R. Pister: Yes. So how can they do that to me?

LaBerge: But they did.

R. Pister: So I wasn't very fond of the regents.

LaBerge: Yes. Well, I'm sure it had something to do with the whole retirement controversy and all of that, I think. So anyway, you didn't get any of that benefit.

R. Pister: No. And then I was supposed to have a car allowance, which I did. And then they took that away from me.

LaBerge: So, you were really performing all these things gratis?

R. Pister: Right. And all the other chancellors' wives the same way.

LaBerge: I think a lot of people don't understand that.

R. Pister: Yes. It's a big job. Although David Gardner told me--he said, "You could do as little or as much as you want."

LaBerge: So, you could have bowed out of all those things and just--?

R. Pister: Apparently, the woman before us did. She didn't appear at receptions, etc. And then there was another woman who just had a photograph, a life-sized photograph of herself made, and she put it in the reception rooms so the people--

LaBerge: [laughter]

R. Pister: Isn't that incredible?

LaBerge: Yes! But see, you aren't that type of person and your marriage wasn't that type that you would've done that, it sounds to me.

R. Pister: Yes. We support one another. So it was a wonderful experience. I made so many--

LaBerge: With all the ups and downs of it?

R. Pister: Right. I made several very good friends, just wonderful friends. So, something I didn't think I'd ever do. You know, the kids were out of school, and--

LaBerge: Yes. You thought you were finished with your duties, sort of.

R. Pister: Right. Yes. So, I didn't really know that I would make more friends. And they are just really dear friends. In fact, I was just down there on Friday because they were giving me a birthday party.

LaBerge: Oh--your Santa Cruz friends. Oh, how great!

R. Pister: Yes. They've done it now for five years. And they call people from the campus. You know, it's just really marvelous. Yes. Actually, I thought of living there when we retired. I started to look at houses on the market as a possible home for us--it was so beautiful. I loved Santa Cruz. The weather was so even. That first year in the wintertime the women were all freezing and they had wool coats on. It wasn't cold by our standards at all. It was heavenly. There were just three or four days out of the year when it would be really hot and humid, and you wished you had air conditioning, but we didn't. But it's just so beautiful. When I went down there Friday--Karl drove me down--just getting into the town, it just looked so lovely--

LaBerge: Friday was a particularly nice day, too.

R. Pister: Yes, but there was just something about the way--each home looked so nice and I really felt like I was coming home. It's really great to be down there. So, one of my friends, though, has died, and the other one, Eileen has moved to Chicago. Her husband's going to be second in command at the University of Illinois at Chicago.

LaBerge: Oh, this is Eileen Tanner?

R. Pister: Yes. So that's two gone. Well, she's still here, and we'll keep in touch, but I won't get to see her that often. So it was a great experience, but it's great to be home.

LaBerge: Yes, I'm sure it is.

R. Pister: And now I can do my artwork, fiddle around, and--I have so much I want to do.

LaBerge: And you can read the paper in the morning, and stay in your bathrobe past eight o'clock, which--why not?

R. Pister: Yes. [chuckling] Why not?

Support of Karl through Retirement

LaBerge: Well, let's cover just a little bit more. Once you finished at Santa Cruz, you probably thought you were retiring again.

R. Pister: Yes, we did. We retired.

LaBerge: But Karl was asked to do something else. So tell me about that, and how you came to that decision.

R. Pister: He was asked to work in the president's office. I really didn't have anything to do with that. It wasn't a job that required anything from me.

LaBerge: Except support--

R. Pister: Oh, of course. And what he was doing was wonderful. One of the big things he did at Santa Cruz was to start a--get the different school districts together with the faculty. You know, he worked to connect the campus to K-12 schools.

LaBerge: And to prepare students to come to the university.

R. Pister: And the other thing he did was to establish a scholarship for one person from each of the thirteen community colleges that were around us--I think there were thirteen community colleges--and that was a wonderful thing. We got to know those kids. They were adults, they weren't kids, you know, who had lived really hard lives while trying to make themselves successful. And they had educated themselves, and they had done kind things

for others. They were wonderful people. And, they got the last two years at Santa Cruz free as a result of this scholarship. So that's a wonderful thing.

LaBerge: That is. And that's going on, so it's a legacy you've left. And so this new work for the president kind of came out of all of that.

R. Pister: Right. He was doing the same thing with all of the UC campuses and trying to get the same kind of consortium set up. It was a big job, but, he felt like it was worthwhile, should be done, so--. Now he's doing the same kind of thing, but with other universities, not the UC's. That was something Karl did when he was chairman of the Academic Council. He set up meetings so that the boards of state universities and the UC schools got together. That was the first time they'd ever had a general meeting.

LaBerge: Because there's been rivalry and suspicion between the two.

R. Pister: Yes. Well, I think the state schools hated that they can't give Ph.D.'s.

LaBerge: Well, would you have any other reflections? Either something that I haven't asked you, or things that you were kind of hoping I'd ask you and you wanted to say about your experience either on campus--

R. Pister: I didn't hope--

LaBerge: You didn't hope for this at all! [chuckling] You're doing it out of the goodness of your heart!

R. Pister: Well, I'm clearly not minding.

LaBerge: Of your experience, or even advice for other wives of a dean, a chancellor, a vice president?

R. Pister: Oh, I don't know. You just find your own way. I think one of the things that was missing for us was what the men had. They had a chancellors' dinner once a month, and they'd talk over all their problems, and they'd laugh at the others, and cried with the others, you know? And I thought we needed that, we women. But--and I tried to get it started, but it wasn't successful because the president's wife didn't see that we needed that. I mean she didn't really think that it was that important, or she already--she thought everyone knew how to do that. But I think it would have been a nice thing if we could have met on a regular basis like the men did, because we all had similar problems.

LaBerge: Oh, absolutely.

R. Pister: And we could learn from others maybe how to prevent something.

LaBerge: Yes. Unless you happen to know somebody and pick up the phone and call.

R. Pister: Right.

LaBerge: Was there a regular place--like, did you go to regents' meetings, or--I mean, not go to the meetings, but did you go along to some of the dinners, or anything like that? Or chancellors' meetings, or--?

R. Pister: No, we weren't invited to that.

LaBerge: Okay, so there wasn't a regular venue.

R. Pister: Sometimes there'd be a dinner and I'd go with Karl to that, or most of the time I'd stay in Santa Cruz.

LaBerge: So, some kind of a support group, or--?

R. Pister: Yes. This is what I felt was in need. Every woman can do what she wants, but still, it'd be helpful to hear what others are doing, and just kind of--well, complain, like the chancellors did. [chuckling]

LaBerge: Exactly! Well, like any just normal people need some kind of a group where you can do that.

R. Pister: Right. You need to be--you also need somebody supportive of you at home. So I think the women chancellors must have a hard time. Well, they've got their husbands, but are husbands that interested in what's going on?

LaBerge: I don't know. And do the husbands have other jobs, too, or are they just at home?

R. Pister: Of course. They would have another job.

LaBerge: Supposedly. Maybe not.

R. Pister: Yes.

LaBerge: Well, maybe when you see the transcript if there--things will probably percolate after this, and you might think, "Oh, gosh. Maybe I should've mentioned--"

R. Pister: Could very well be.

LaBerge: You can just write a little something and stick it in?

R. Pister: Okay.

LaBerge: Alright. So I'll just end this, and thank you very much for agreeing to do this.

R. Pister: [chuckles]

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KARL STARK PISTER

Address

Office: 714 Davis Hall, University of California, Berkeley, CA 94720
Home: 828 Solana Drive, Lafayette, CA 94549
Born June 27, 1925, Stockton, California

Education

1945 B.S. (honors), Civil Engineering, University of California, Berkeley
1948 M.S., Civil Engineering, University of California, Berkeley
1952 Ph.D., Theoretical and Applied Mechanics, University of Illinois, Urbana-Champaign

Academic Positions

1947-49 Lecturer and Instructor in Civil Engineering, University of California, Berkeley
1949-52 Instructor in Theoretical and Applied Mechanics, University of Illinois, Urbana-Champaign
1952-57 Assistant Professor of Civil Engineering, University of California, Berkeley
1957-62 Associate Professor of Civil Engineering, University of California, Berkeley
1962 Professor of Engineering Science, University of California, Berkeley
1985-90 Roy W. Carlson Professor of Engineering, University of California, Berkeley
1996 Roy W. Carlson Professor of Engineering, Emeritus

Administrative Positions

1963-67 Vice Chairman for Graduate Affairs, Division of Structural Engineering and Structural Mechanics, Department of Civil Engineering, University of California, Berkeley
1970- 73 Chairman, Division of Structural Engineering and Structural Mechanics, Department of Civil Engineering, University of California, Berkeley
1980-90 Dean, College of Engineering, University of California, Berkeley
2002 Dean Emeritus, College of Engineering, University of California, Berkeley
1991-92 Interim Chancellor, University of California, Santa Cruz
1992-96 Chancellor, University of California, Santa Cruz
1996 Chancellor Emeritus, University of California, Santa Cruz
1996-99 Senior Associate to the President, UC Office of the President
1999-00 Vice President-Educational Outreach, UC Office of the President
2002-03 Interim Director, Center for Studies in Higher Education, UC Berkeley

Positions in University Governance

(Academic Senate of the University of California at Berkeley)

1971-72 Member, Committee on Educational Policy
1972-73 Chairman, Committee on Educational Policy
1975-77 Chairman, Committee on Senate Policy and
Vice Chairman, Berkeley Division of the Academic Senate

(Academic Senate of the University of California System)

1972- 73 Chairman, University Committee on Educational Policy
Chairman, Coordinating Committee on the Extended University
Member, Academic Council and Assembly of the Academic Senate

1978-79 Vice Chairman, Academic Council and Assembly of the Academic Senate
Faculty Representative to the Board of Regents.
Member, University Committee on Planning and Budget
Member, Academic Planning and Program Review Board
Member, Budget Team Representing the University at
Hearings of the California State Legislature

1979-80 Chairman, Academic Council and Assembly of the Academic Senate
Faculty Representative to the Board of Regents
Member, University Committee on Academic Personnel
Member, Committee on Committees
Member, Budget Team

(Administrative Committees, University of California System)
University Council on Engineering Education (Chairman, 4 years)
President's Fellowship Advisory Committee
Advisory Committee on Academic Affirmative Action, Office of the President
Advisory Committee for the All-University Faculty Conference on Faculty and Graduate Student Affirmative Action, Office of the President
Task Force on the Armenian University Project, Office of the President
Task Force on the Faculty Reward System (Chairman)
Presidential Transition Team, Office of the President
Task Force on Research and Technology Transfer (Co-Chair)

(Administrative Committees, University of California, Berkeley)
Council of Deans
Physical Sciences Council
Earth Sciences Council
Campus Advisory Committee, Lawrence Hall of Science (Chairman, 2 years)
Lawrence Hall of Science Advisory Council
College of Letters and Science External Committee for Budget System Review
Chancellor's Blue Ribbon Committee on Faculty Housing
Naming of Buildings Subcommittee of the Space Assignments and Capital Improvements Committee
Computer Science Building Committee
Hearst Memorial Mining Building Study Committee
Lawrence Hall of Science Building Committee

Board of Trustees, UC Berkeley Foundation
Board of Directors, Engineering Alumni Society
Board of Directors, Statewide MESA Program

Professional and Public Service (Selected examples)
American Society of Civil Engineers, Engineering Mechanics Division
1972-73 Chairman, Executive Committee
1974-75 Chairman, Advisory Board

National Research Council
1981-84 Co-Chairman, Committee on Computational Mechanics

1990-1994 Chairman, Board on Engineering Education
1994-1996 Member, Coordinating Council for Education

National Academy of Engineering
1984 Member, Committee to Review the Engineering Directorate of the National Science Foundation
1990 Member, Nominating Committee
1991-93 Member, Peer Committee for Civil Engineering
2002-date Chairman, Committee on Diversity in the Engineering Workforce

National Science Foundation
1984 Member, Selection Committee for Presidential Young Investigator Awards
1987-90 Member, Advisory Committee, Directorate for Science and Engineering Education
1987 Member, Director's Review Panel for the Graduate Fellowship Program
1992-93 Co-Chair, Federal Coordinating Council for Science, Engineering, and Technology, Expert Panel on the Review of Federal Science, Mathematics and Technology Education Programs

Defense Nuclear Agency, Department of Defense
1984-88 Member, Scientific Advisory Group on Effects

State of California Competitive Technology Program
1989-91 Member, Advisory Board

General Motors Technical Center
1989-91 Member, University Advisory Board

Lawrence Livermore National Laboratory
1957-date Consultant
1989-1991 Member, Senior External Events Review Group
1996-date Member and Chairman, Director's Review Committee for Engineering

Los Alamos National Laboratory
1988-92 Consultant
Member, External Advisory Committee, Mechanical and Electronic Engineering Division

American Society for Engineering Education
1988 Member, Task Force on the Faculty Pipeline
Member, Board of Directors, Engineering Deans' Council

Professional and Academic Service (Selected Examples)

Member, Committee on Opportunities in Science, American Association for the Advancement of Science
Member, Nominating Committee for the Independent Safety Committee, Diablo Canyon Settlement, PG&E
Member, Overseas Advisory Committee, Hong Kong University of Science and Technology, School of Engineering
Member, Visiting Committee, Department of Theoretical and Applied Applied

Mechanics,University of Illinois, Urbana-Champaign.
Member, Director's Review of the Internal Research and Development Program, Lawrence Livermore National Laboratory
Chairman, Science and Engineering Education Review Group, Waste Policy Institute
Member, Visiting Committees, Departments of Civil and Mechanical Engineering, Stanford University
Member, Visiting Committee, College of Engineering, Pennsylvania State University
Member, Special Advisory Committee, University of Nevada System
Member, Visiting Committee, Division of Engineering and Applied Science, California Institute of Technology
Chairman, Visiting Committee, Department of Civil Engineering, Carnegie Mellon University
Member, International Scientific Committee, International Association for Structural Mechanics in Reactor Technology
Member, Founding Council of the International Association for Computational Mechanics
Member, Scientific Committee, 11th National Congress of Theoretical and Applied Mechanics
Member, International Advisory Committee, 3rd International Conference on Constitutive Laws for Engineering Materials
Chairman, Board of Directors, California Council on Science and Technology
Member, Board of Directors, Monterey Bay Aquarium Research Institute
Member, Board of Trustees, Monterey Institute of International Studies
Member, Senior Accreditation Commission, Western Association of Schools and Colleges
Member, Industrial Advisory Board for Lawrence Livermore, Los Alamos, Sandia and Oak Ridge National Laboratories
Member, Board of Trustees, American University of Armenia
Member, Board of Directors, Center for the Future of Teaching and Learning
Member, Board of Governors, Institute for Mechanics and Materials, University of California, San Diego
Chair, Division of Engineering, American Association for the Advancement of Science
Member, Board of Directors, Center for the Future of Teaching and Learning

esearch and Scholarly Activity

incipal Investigator on research grants and contracts in the areas of mechanics of solids and ructures, earthquake engineering, and optimization-based, computer-aided design of dynamically aded structures. Supervised 32 doctoral students; author or co-author of more than 150 papers in chival journals, books and technical reports.

litorial Board, *Journal of Optimization Theory and Applications*
ssociate Editor, *Computer Methods in Applied Mechanics and Engineering*
ember, Advisory Board, *Issues in Science and Technology*
ember, Editorial Advisory Board, *Encyclopedia of Physical Science and Technology,* Academic ess

Military Service
Served in the Civil Engineer Corps of the Navy in WWII and in the Naval Reserve Construction Battalion Program, before retirement in 1969 with the rank of Captain.

Society Memberships
Fellow, American Academy of Mechanics
Fellow, American Society of Mechanical Engineers
Fellow, American Association for the Advancement of Science
Member, American Society of Civil Engineers
Member, Society for Engineering Science
Member, American Society for Engineering Education

Honor Society Memberships

Sigma Xi
Tau Beta Pi
Chi Epsilon
Pi Mu Epsilon

Awards and Honors
Wason Medal for Research, American Concrete Institute
Professor, Miller Institute for Basic Research in Science, University of California, Berkeley
Fulbright Scholar, Department of Mathematical Physics, University College, Cork, Ireland
Senior Fulbright Scholar, University of Stuttgart
Richard Merton Guest Professor, University of Stuttgart
Member, National Academy of Engineering
Distinguished Alumni A ward, College of Engineering, University of Illinois, Urbana-Champaign
Roy W. Carlson Professor of Engineering (appointed to the endowed chair)
Vincent Bendix Award for Minorities in Engineering, American Society for Engineering Education
Distinguished Engineering Alumni Award, College of Engineering, University of California, Berkeley
Benjamin Garver Lamme Medal, American Society for Engineering Education
Fellow, American Academy of Arts and Sciences
Honorary Fellow, California Academy of Sciences
Honorary Member, International Association for Computational Mechanics
Berkeley Medal, University of California, Berkeley
Presidential Medal, University of California
President's Award, American Society of Mechanical Engineers International
Applied Mechanics Division Award, American Society of Mechanical Engineers International
World Technology Award for Policy, World Technology Council

University of California Appointments – 1946-2003

Teaching Assistant in Civil Engineering – 1946
Lecturer in Civil Engineering – 1947
Instructor in Civil Engineering – 1948
Assistant Professor of Civil Engineering – 1952
Associate Professor of Civil Engineering – 1957
Professor of Civil Engineering – 1962
Miller Institute Professor – 1962
Professor of Engineering Science – 1968
Vice Chairman, Division of Structural Engineering and Structural Mechanics – 1963
Chairman, Division of Structural Engineering and Structural Mechanics – 1970
Chairman, Committee on Educational Policy, Berkeley Division – 1972
Chairman, University Committee on Educational Policy – 1972
Chairman, Coordinating Committee on the Extended University – 1972
Chairman, Senate Policy Committee, Berkeley Division – 1975
Vice Chairman, Academic Council – 1978
Faculty Representative, Board of Regents – 1978
Chairman, Academic Council – 1979
Dean, College of Engineering, UC Berkeley – 1980
Roy W. Carlson Professor of Engineering – 1985
Interim Chancellor, UC Santa Cruz – 1991
Chancellor, UC Santa Cruz – 1992
Senior Associate to the President – 1996
Vice President – Educational Outreach – 1999
Interim Director, Center for Studies in Higher Education, UC Berkeley - 2002

Telegramm **Deutsche Bundespost** Verzögerungsvermerke

Datum	Uhrzeit	TSt	Stuttgart 80	Leitvermerk	Datum	Uhrzeit
8	Empfangen 27	4111TF FFM D =			Gesendet	
Platz	Namenszeichen				Platz	Namens

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PROFESSOR K S PISTER

SD UNIVERSITY OF STUTTGART

PFAFFENWALDRING 27

7STUTTGART80 WESTGERMANY)

Dienstliche Rückfragen

COULD YOU AND I COMMUNICATE IN SOME WAY AS SOON AS POSSIBLE. YOU AR THE ~~NUMBER ONE CHOICE OF THE ACADEMIC COUNCIL TO BECOME THE NEXT~~ VI CHAIRMAN OF THE ASSEMBLY AND THE ACADEMIC COUNCIL. I CAN BE REACHED THROUGH THE ACADEMIC SENATE OFFICE AT BERKELEY. JON H RALEIGH 3

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The art

Excerpt from investiture speech

"We have dreamed the dreams.
What framework can be constructed,
upon which we can build a campus,
a university, a state or a nation?
A framework that is supportive of people's need
and aspirations is not made of dreams,
but is the consequence of the visions
and labors of those with
the courage to dream the dreams"

Chancellor Pister's Investiture remarks

"FOUR DREAMS"

October 9, 1992

UC Santa Cruz

KARL S. PISTER

Distinguished professor and statesman of science, you have earned the highest honors your profession can bestow and inspired countless students with the power and beauty of your discipline; wise and thoughtful leader, you have devoted your many gifts of mind and character to the University of California as faculty member, dean, chancellor, and vice president through decades of challenge and change; eloquent advocate for California's children, you have served the cause of social justice and your contributions will enrich the lives of generations yet unborn.

For your steadfast and exemplary service to California and the community of learning, the University of California is proud to bestow upon you the Presidential Medal.

September 23, 2000

Richard C. Atkinson
President

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

In Appreciation
KARL S. PISTER

WHEREAS, Karl S. Pister has devoted his superb talents to the University of California for a half a century as faculty member, dean, chancellor, and vice president; and

WHEREAS, he has exemplified throughout his career a deep commitment to the principle and the practice of shared governance, reflected especially in his outstanding contributions as chair of the Universitywide Task Force on Faculty Rewards, vice chair and chair of the Academic Council, and faculty representative to the Board of Regents; and

WHEREAS, as chancellor of UC Santa Cruz he guided the campus to new heights of excellence and demonstrated strong leadership in establishing such innovative endeavors as the Monterey Bay Educational Consortium and the Leadership Opportunity Awards, a scholarship program now named in his honor that enables talented community college students to transfer to the Santa Cruz campus and realize their dreams of a UC education; and

WHEREAS, following his retirement from UC on July 1, 1996, he returned to serve as Senior Associate to the President and subsequently as Vice President for Educational Outreach, where he has overseen the development of an ambitious and unprecedented partnership between the University of California and the K-12 public schools that is intended to open the doors of opportunity to California students of every background; and

WHEREAS, he has brought distinction to the University through his many professional and educational accomplishments, achievements that have earned him election to the National Academy of Engineering, the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the American Society of Mechanical Engineers, as well as numerous awards from universities and academic organizations, among them the Berkeley Medal, bestowed on individuals whose intellectual leadership and service to the public exemplify the highest ideals of the University;

NOW, THEREFORE, BE IT RESOLVED that the Regents extend to Karl S. Pister their gratitude and appreciation for his long and faithful service to the University of California and their thanks for his steady presence, his wise counsel, and his unfailing good humor;

AND BE IT FURTHER RESOLVED that a suitably inscribed copy of this resolution be presented to Karl and Rita Pister as an expression of the Board's warm regard and affection and its best wishes for their future.

ATTEST:

Patricia L. Turetto

Secretary of The Regents
of the University of California

MAY 2000

PISTER BLUE & GOLD CELEBRATION

Honoring Karl & Rita's 50 years with the University of California
Their 50th Wedding Anniversary and Karl's 75th Birthday

Saturday, September 23, 2000
The Claremont Resort

Hors D'oeuvres

DINNER

Salad Buffet

•

Dinner Buffet

•

Dessert Buffet

PROGRAM

Welcome and Announcements
Bob Nickell, Chairman

•

Karl and Rita Pister Anecdotes
The Early Years
The Early Post-War Years
The Pister Research Machine
The Later Years
The Technical Family Tree
Other Special Anecdotes

•

ASME International President's Award
Bob Nickell, Immediate Past President, ASME International

The Presidential Medal
Richard Atkinson, President, University of California

•

Response, Karl Pister

Closing Words

Reception

The Pister Blue & Gold Celebration Committee

Bob Nickell, Chairman
Bob Dunham, Werner Goldsmith, Jerry Goudreau,
Kris Pister, Joe Rashid, Jerry Sackman, Bob Taylor

Alumni Relations Office, College of Engineering

PISTER BLUE & GOLD CELEBRATION
Saturday, September 23, 2000

Richard Atkinson
Rita Atkinson
Mark Austin
Robert Berdahl
Mary Breunig
Claire Brouwer
Anil Chopra
Ramsey Chun
Yung Chun
Vincenzo Ciampi
Rita Ciampi
Stan Dong
Jane Dong
Francis Drake
Bob Dunham
Gail Dunham
Roger Evans
Judith Ann Evans
Mike Fourney
Werner Goldsmith
Penelope Goldsmith
Gerald Goudreau
Mary Goudreau
Sanjay Govindjee
Marilyn Govindjee
Paul Gray
Judy Gray
David Green
M. R. C. Greenwood
John Halliday
Layne Halliday
Judi Hance
Al Hausrath
Mary Elizabeth Hausrath
Leonard Herrmann
Marilyn Herrmann
Karen Holtermann
Marily Howekamp
Dave Howekamp
Woody Ju
Mali Guo
Kenneth Kavanagh
Jim Kelly
Celia Kelly
Armen Der Kiureghian
Bob Langland
Lynn Langland
Jim Lee
Grace Lee
George Leitmann
Nancy Leitmann
T. Y. Lin
Margaret Lin
George Maslach
Doris Maslach
Errol Mauchlan
Bernice Gilardi
Hugh McNiven
Marian McNiven
Larry Milnes
Elinor Milnes
Sia Nemat-Nasser
Eva Nemat-Nasser
Bob Nickell
Peggy Nickell
Robert Oliver
Donna Oliver
Mohammad Panahandeh
Tracy Pearse
Joe Penzien
Mi-Jung Penzien
Peter Pinsky
Phil Pister
Jacinta Pister
Richard Whitmore
Kris Pister
Jennifer Pister
Robert Polkinghorn, Jr.
Kathy Medina Polkinghorn
Egor Popov
Mark Rashid
Nancy Rashid
Joe Rashid
Jan Rashid
Jerome Sackman
Sandra Sackman
Ranbir Sandhu
Surinder Sandhu
Alex Scordelis
Georgia Scordelis
Glenn Secor
Kenneth Secor
Mary Lou Secor
Len Swec
Michael Tanner
Eileen Tanner
Chuck Taylor
Lee Taylor
Bob Taylor
Mary Lou Taylor
Edmondo Vitiello
Pina Vitiello
Loc Vu-Quoc
Norman Walker
Roger Werne
Lani Werne
Kaspar Willam
Max Williams
Melba Williams
Ed Wilson
Diane Wilson
Marilyn Witbeck
Henry Yang

Sending Greetings In Absentia

Bob Pepper
Bernard Bornhorst
Mike Carroll
Ray Clough
C. K. Liu
Russ Westmann
Constance Lutolf-Carroll
John Whinnery
Worsak Kanok-Nukulchai

Karl S. Pister

PUBLICATIONS

A. REFEREED PUBLICATIONS

Technical Papers

1. "Critical Escape Velocity for a Porous Medium with a Free Surface," *Transactions*, AGU, Vol. 31, No. 2, 1950, pp. 249-252.

2. "Discussion of 'A Manometric Settling Velocity Tube' by Martin A. Mason," *Transactions*, AGU, Vol. 31, No. 3, 1950, p. 274.

3. "The Airy Stress Function in Curvilinear Coordinates with application to the Uniform Flexure of a Naturally Curved Spiral Beam," *Journal of Franklin Institute*, Vol. 257, No. 1, 1954, pp. 25-36.

4. "Discussion of 'Bending of Isotropic Thin Plates by Concentrated Edge Couples and Forces' by Y. Y. Yu," *Transactions*, ASME, Vol. 76, 1954.

5. "Strength of a Concrete Slab Prestressed in Two Directions" (with A. C. Scordelis and T. Y. Lin), *Journal of American Concrete Institute*, Vol. 28, No. 3, September 1956, pp. 241-256.

6. "Failure of Plain Concrete Under Combined Stresses" (with B. Bresler), *Proceedings*, ASCE, Vol. 122, 1957, pp. 1049-1068.

7. "Strong Cylindrical Bending of Elastic Plates" (with S. J. Medwadowski), *Journal of Engineering Mechanics Division*, ASCE, Vol. 84, July 1958, pp. 1692-1 to 1692-11.

8. "Vibration of Rectangular Plates and Plate Systems" (with E. H. Dill), *Proceedings*, 3rd U.S. National Congress of Applied Mechanics, ASME, December 1958, pp. 123-131.

9. "Flexural Vibration of Thin Laminated Plates," *Journal of Acoustical Society of America*, Vol. 31, No. 2, February 1959, pp. 233-234.

10. "Strength of Concrete Under Combined Stresses" (with B. Bresler), *Journal of American Concrete Institute*, Vol. 30, No. 3, pp. 321-345. Also published as Discussion, Vol. 30, No. 9, March 1959, pp. 1035-1046.

11. "Elastic Bending of Layered Plates" (with S. B. Dong), *Journal of Engineering Mechanics Division*, ASCE, Vol. 85, October 1960, pp. 1-10.

12. "Bending of Plates on a Viscoelastic Foundation" (with M. L. Williams), *Journal of Engineering Mechanics Division*, ASCE, Vol. 86, October 1960, pp. 31-44.

13. "Viscoelastic Plate on a Viscoelastic Foundation," *Journal of Engineering Mechanics Division*, ASCE, Vol. 87, February 1961, pp. 43-54.

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1/07/03

Karl S. Pister
Academic Family Tree

The Pister Blue and Gold Celebration was held at the Claremont Resort, Berkeley, CA on September 23, 2000 honoring Karl and Rita's 50 years with the University of California, Their 50th Wedding Anniversary and Karl's 75th Birthday.

The event was planned by a group of Karl's Berkeley colleagues and his former doctoral students, with the assistance of the College of Engineering Alumni Office. Among the many highlights of the evening was the opportunity to view a banner on the dining room walls that displayed the Academic Family Tree which Karl generated during his 41 years at Berkeley. This family tree, thanks to his son, Kris, now Professor of Electrical Engineering at Berkeley, is captured on the enclosed compact disk.

August 2003

INTERVIEWS ON THE HISTORY OF THE UNIVERSITY OF CALIFORNIA

Documenting the history of the University of California has been a responsibility of the Regional Oral History Office since the Office was established in 1954. Oral history memoirs with University-related persons are listed below. They have been underwritten by the UC Berkeley Foundation, the University of California Office of the President, the Chancellor's Office, University departments, or by extramural funding for special projects. The oral histories, both tapes and transcripts, are open to scholarly use in The Bancroft Library. Bound, indexed copies of the transcripts are available at cost.

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